

RAILWAY AGE

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WEEK AT A GLANCE

HIGH-WATER MARK: Two billion dollars is *still* a lot of money—to the railroads or any other industry which has to earn its own way. In 1948 the railroads, for the first time, spent more than that amount for fuel and other materials and supplies. A detailed breakdown of these purchases is given on page 67, in an article which also includes an analysis of railroad buying in January of this year.

THE DOWNTRODDEN MAJORITY: Protection of the rights and liberties of so-called minority groups is all very well—but when such minorities themselves become highly organized, clamorous and demanding, who's going to protect the majority? In the transportation field, that question has its application in the ultimate effect on "rail-bound" shippers of large-scale traffic diversion to publicly-financed highways or inland waterways. The question is discussed in further detail in our leading editorial.

NEW U. P. COMMISSARY: A new dining-car commissary recently placed in service at Denver, Colo., by the Union Pacific is described and illustrated in an article which begins on page 58.

KEEPING THEM COMFORTABLE: The problem of providing steam for heating purposes on Dieselized passenger trains has received considerable attention in recent issues of *Railway Age*, in feature articles and in at least one communication from a reader. This week, at page 52, we present further information on the subject, by reprinting a paper presented before the New York Railroad Club by J. F. Griffin, chief engineer of the Superheater Company division of Combustion Engineering-Superheater, Inc. In it, Mr. Griffin describes a forced-circulation steam-heat generator.

GREATER CAPITAL OUTLAY: Gross 1949 capital expenditures nearly 10 per cent higher than even the record-breaking 1948 total are indicated in estimates of 127 Class I roads which are summarized in the latest "Monthly Comment" of the Interstate Commerce Commission's Bureau of Transport Economics and Statistics. The "Comment," which is reviewed on page 56, also contains articles on "total income" of Class I roads and its distribution in 1948 and previous years; and on passenger and freight operations.

NO EXTRA ENGINEERS: "No extra engineer on Diesel-electric road locomotives" is a concise summary of the report of the emergency board which investigated the demand of the Brotherhood of Locomotive Engineers for an additional man. The report, which found the B. of L. E. claim to be "without merit," is reviewed at page 60. Another interesting report covered in the week's news is that of the emergency board appointed in the recent Wabash strike; the board found the circumstances of that strike "damaging" to the cause of labor.

TOWARD A "NATIONAL TRANSPORTATION POLICY": Repeal of wartime excise taxes on transportation, support of the Reed-Bulwinkle Act, an eventual end of government subsidies and ultimate creation of a single transportation regulatory agency are among recommendations adopted by the transportation committee of the United States Chamber of Commerce for presentation to that body's annual meeting next month. One of its recommendations is an open sop to truck propaganda, but the others, as outlined in our News section, constitute a generally sound approach to a national transportation policy, by a committee happily composed of representatives of all the major agencies of transportation.

GOING UP: For the second successive week, freight car loadings in the week ended April 9 topped those in the corresponding week of 1948 and exceeded or virtually equalled those of 1947. Even two swallows, to be sure, don't make a summer, but the figures, as detailed in the News pages, are beginning to look better than at any time since the turn of the year.

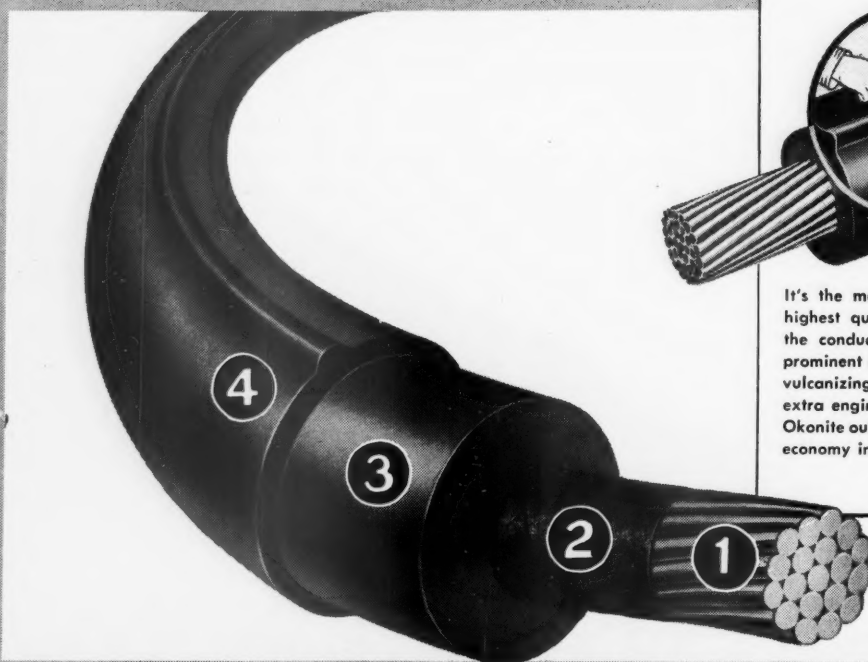
HOW COME? The Interstate Commerce Commission's Washington hearing on the Western Traffic Association's Reed-Bulwinkle Act application ended on April 8—without direct presentation or cross-examination of railroad witnesses by attorneys for the Department of Justice. The hearing will be resumed at Dallas, Tex., on April 27.

RAILROAD-SHIPPER COOPERATION: Two fine examples of ways in which railroads and shippers can cooperate to their mutual benefit are contained in our News report of this week's meeting of the New England Shippers Advisory Board. The board appointed a special committee to study the problem of moving, expeditiously and without car shortages, the Maine potato crop, with a view to avoiding, on the one hand, loss of traffic to the railroads, and, on the other, loss of sales to the growers. It also arranged for a special meeting in June to consider transportation problems in Vermont.

ONE WAY OF EARNING SIX PER CENT: A six per cent return on investment is a generally accepted railroad goal—but one which, considering the industry as a whole, appears difficult, if not impossible, to attain. The Baltimore & Ohio, however expects to realize just about that rate of return on its investment in Barr yard, recently completed at Chicago. As pointed out in an illustrated article starting on page 62, the cost of the new facility was \$3,852,000; anticipated annual operating savings come to about \$230,000, which works out at 5.97 per cent. The article includes a detailed description of the communications network, locomotive servicing and car repair facilities, and other features which are expected to contribute to the estimated reduction in operating costs.

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THE DOWNTRODDEN MAJORITY

At a congressional hearing in Washington one day last year, where a number of champions of the rights of so-called "minority groups" were being heard, an elderly man endeavoring to make his way through the throng was asked by an attendant, "What group do you represent?" "I, sir, represent the downtrodden majority," the old man answered. In the world of transportation, unfortunately, the downtrodden majority—those whose products move by rail—have no representation, although the minorities whose goods move predominantly by truck or by barge have militant and partisan spokesmen aplenty. Thus it is that progressively increasing political favors come the way of truck and barge transportation, with shippers by rail being always the donors and never the recipients.

Parallel Facts

A great deal has been spoken and written of late about heavy diversion of comparatively long-haul freight traffic from the railroads to movement by trucks, such reports often ending with some expression of opinion to the effect that the situation looks pretty serious for the railroads. These accounts usually neglect to draw attention to the parallel fact that such loss of traffic by the railroads presents a pretty serious situation for a lot more people than just those who are connected with the railroads.

The threat of this development to the welfare of shippers and receivers of "rail-bound" freight is probably greater than to anybody else, not excepting the railroad industry itself.

In spite of the large tonnage of long-haul freight which—thanks to the generosity of the taxpayers who provide the highways—the trucks have been able to divert from the railroads, there still remains a great deal of heavy traffic, the free and economical movement of which is absolutely vital to the nation's welfare, which cannot possibly be transported by truck except at ruinous costs. Since so large a proportion of railroad expense is "fixed"—remaining the same regardless of traffic volume—the loss of tonnage to trucks simply means that this "fixed" expense must be borne by the traffic which remains on the rails, the railroads having no pipe line into the public treasury as highway and waterway transportation have. Since their costs do not diminish proportionately when traffic declines, they have no recourse, when volume drops, except to endeavor to collect proportionately higher charges from the traffic which remains.

This "rail-bound" traffic embraces a large number of commodities the widespread movement of which is indispensable. Not only that but most of these commodities cannot "bear" unduly high transportation costs without serious harm to the national income and national productive capacity. At one of

**Average Railroad Charges Compared to Trucking Costs
for Average Haul of Several Basic Commodities**

Group No. and Commodity	Avg. Haul (Miles)	Avg. R.R. Revenue (¢ per Cwt.)	Avg. Cost by Truck (¢ per Cwt.)
2—Grain Products	571	26.58	51.91
15—Products of Agriculture NOS	657	48.57	58.85
25—Anthracite to Washers	141	10.35	17.20
26—Bituminous Coal	334	13.78	32.78
27—Coke	197	12.84	21.72
28—Iron Ore	126	5.38	15.98
29—Other Ores & Concentrates	293	13.30	29.47
32—Sand, Gravel & Stone	114	6.73	15.02
39—Logs, Butts, Bolts, Pulpwood, etc.	275	15.11	28.01
40—Lumber, Shingles, Lath, etc.	992	51.82	85.90

the recent Interstate Commerce Commission hearings in the current rate-increase case, L. F. Orr* of St. Louis, testifying in behalf of the Dairy Industry Committee, presented significant figures—some of which are given in the accompanying table—showing a few of the important commodities which are hauled by rail at rates far below the expense which would be incurred if producers were to attempt to move them by truck for the average distances they now move by rail.

This list of commodities which are absolutely dependent upon economical transportation by rail for the average distances they now move is by no means exhaustive. Every community in the country has traffic moving in or out of it which is vital to its welfare and which cannot be moved economically except by rail. Anyone with the least spark of imagination about economic matters can readily appreciate what a catastrophe it would be for the nation's living standards and productive efficiency either (1) if the railroads were forced out of business so this traffic would have to move by truck, at truck costs, or (2) if, by continuing attrition of their other traffic, railroad rates on such important commodities as these were forced upward to a level nearing that of trucking costs. Let it also not be overlooked that large diversion of traffic to long-haul trucks entails additional hidden costs to shippers and the public beyond the charges collected by the truck operators—for example, the added cost of repairing the highways broken to pieces by overlaid vehicles; and the loss of *ad valorem* taxes when railroad property is abandoned (since property taxes are not collected from highway traffic).

Opportunity for Sound Leadership

Some months ago, one of the nation's most prominent and highly regarded industrial traffic managers, since retired, asserted in an address that the over-the-road truck was "largely an economic liability and is one of the reasons for the present high level of freight rates." The subject received no further discussion because the "minority" groups in trans-

portation are just as alert and successful at repressing questioning of their privileged status as are any of the so-called "minorities" who are continually urging special legislation in their behalf from the nation's legislative bodies.

There appears to be no reason except excessive modesty or inertia why shippers and receivers of commodities which must move by rail should not organize—not to seek special privileges for themselves as the "minority" transportation interests have done—but, at least, to protect themselves from further victimization. Mere opposition to the "other fellow," of course, is seldom successful. A positive program of improved transportation service, with emphasis on the most essential part, e.g., the railroads, is the only objective likely to succeed. The opportunity is ripe for sound leadership, and there are traffic and transportation men fully capable of assuming it.

A GLIMMER OF LIGHT

As the mechanical department officer has little or no control over the basic economic factors of wages and material prices that influence maintenance and construction costs of rolling stock, he must look for opportunities to reduce expenses in the operation of his shops and terminals. The looking will probably be a little more sharp before and after the first of September when the shop forces start a five-day-week on a six-day-pay basis. At that time, the base pay of a mechanic will be approximately \$1.70 an hour, about a 20 per cent boost over the high wage scales already in effect.

In searching for means to combat the increased cost of doing business a mechanical department officer will want to know what effective measures are being taken by other railroads. It will be more worth while than ever to know what the "other fellow" is doing to save man-hours. With the difficult labor problems that have faced the railroads, some mechanical departments have been inclined to soft-pedal publicity about their achievements in cutting shop and terminal costs in the maintenance and repair of cars and locomotives. Many have held the belief that attention drawn to cost-cutting methods and equipment would affect adversely their labor relations work. All shop managements recognize that the introduction of labor-saving tools and methods has been resisted in varying degrees by workmen and labor organizations. They cause temporary dislocations in personnel, to be sure, but in the long run the production methods peculiar to American industry have been largely responsible for the high standard of living in this country.

It is possible that an easing of the situation is in the offing if the advice the American Federation of

*Mr. Orr's complete presentation was designed to support his position that many products are rated by the railroads, often unnecessarily, at a level considerably above trucking costs, thus inviting diversion of such traffic from the railroads.

Labor is giving its members can be taken as a trend in the thinking of labor organizations. In an editorial in the March 8, 1949, New York World-Telegram, under the title of "Wisdom from the AFL," comments were directed at the statements made in the AFL Monthly Survey. This editorial said "Instead of telling workers that 'greedy employers' can well afford another big general pay boost, the AFL is following a wiser course. It is advocating twin remedies for the lag in workers' buying power: (1) Continued orderly downward readjustment of prices; (2) wage increases, without increasing prices, as productivity rises."

As the World-Telegram points out, the last three words are very significant because "they recognize the one thing which can make it possible for prices to be lowered, wages to be increased, and for living standards to improve year by year. That thing is increasing productivity, which the AFL aptly defines as the 'rise in production per man-hour of the worker and his machine'."

There are plenty of opportunities to raise the output per man in railroad shops and terminals, because the railroads have only scratched the surface in the field of production engineering. Some instances in which that objective has been accomplished have been described. There are other examples which could be very helpful in showing the way to greater productivity and a change in the attitude of the unions, and of management, too, that will make it possible to tell the railroads about them will be very welcome.

WHAT KIND OF TECHNOLOGICAL RESEARCH?

It is well for the railroads that the word "research" has become so large a part of their everyday vocabulary, and that coordinated, scientific investigation into their manifold problems is continually growing. The door to expanding knowledge has been opened, and, properly directed, benefits of unlimited value to the industry, its patrons and the public will result.

One of the most tangible forward steps the railroads have taken in this desirable direction is the project of the Association of American Railroads for the immediate construction of a \$600,000 research laboratory on the campus of the Illinois Institute of Technology at Chicago. This facility is already being regarded by some as only the nucleus of an expanding railroad research center. The current research budget of the Engineering Division of the A.A.R. is at an all-time peak of nearly \$400,000, but here again there are those who look upon such a sum merely as "pocket money" compared with that which could be profitably spent each year for technological research by this division alone.

The railroads were never before so concerned with research as they are now. In some respects, they came up behind other industries that had long taken the lead in scientific investigation, but they have now grasped this instrument with so much enthusiasm that there is some danger lest some of those who are directing this effort may in their inexperience steer this activity into inefficient, or even harmful, ways — inefficient through a narrow approach to the broad, basic needs of the industry; through careless duplication of the efforts of other groups; through the unwise selection of specific projects; through an attempt to apply production methods to research effort; and actively harmful through practices that would impede or stifle the initiative, imagination and efforts of other groups interested in similar objectives. Such adverse influences should be discouraged and resisted.

Sound counsel on all of these matters was given at the recent annual meeting of the American Railway Engineering Association, which functions as the Construction and Maintenance section of the Engineering Division of the A.A.R. Here it was pointed out that, among other things, there should be greater appreciation of the importance of *fundamental* research by industry as the true background for *applied* research; that there should be close collaboration with the research facilities of colleges and universities, of technical engineering bodies and of other industries; that research cannot be speeded up like an assembly-line job; that researchers should not be put on a production schedule or be under compulsion to produce immediate commercial results; and that those in charge should exercise the greatest care in the selection of projects, concentrating on the more important and fundamental, to the exclusion of those of a lesser or narrower base.

Also referred to was the desirability of actively encouraging research by other industries, of working with the manufacturers, and of affording them, on the railroads, a "proving ground" for their products.

Such advice assuredly means keeping the door wide open for cooperation and interchange of ideas with industry; restraint in entering into direct competition with related industry, and the avoidance of activities which would destroy the incentive of industry to improve its products or services or develop new ones. Max K. Ruppert, president of the National Railway Appliances Association, spoke directly to the point when he said, in effect, to the convention, that research should point the way—while the ingenuity of industry should be encouraged to develop the manifold forms by which the desired results can be achieved. Our country's industrial greatness, he said, has been built on this pattern, and failure to continue to follow it would bring the threat of sterility of thought, with consequent cessation of progress.

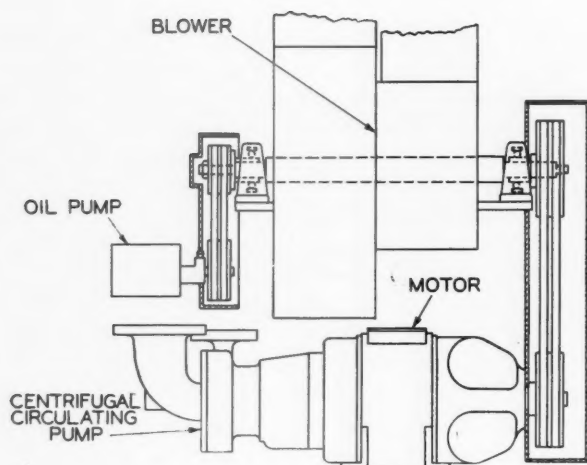


Fig. 1

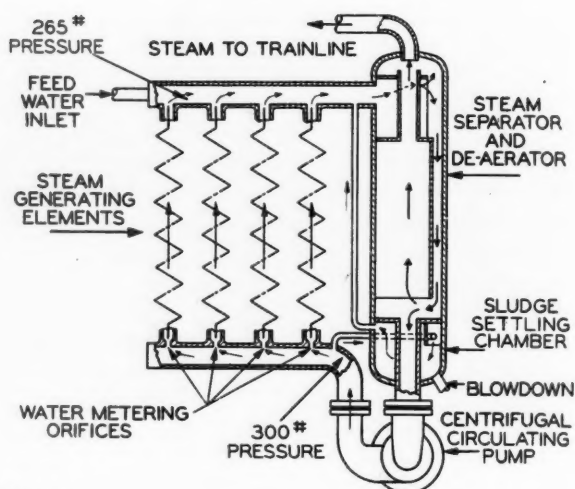


Fig. 2

A FORCED-CIRCULATION STEAM-HEAT GENERATOR

Preheats and deaerates feedwater—Fired by two burners, one all on or all off and one graduated

One of the most exacting jobs in railroading today is the provision of steam for heating purposes on Dieselized passenger trains.

Space and weight limitations demand a most compact steam generating unit. When once started by the crew, the steam generator must be fully automatic in every respect because it is located in the Diesel-electric locomotive away from the crew and is, therefore, unattended from one end of the run to the other.

The Elesco steam generator used on Diesel locomotives for heating purposes is described here. It is manufactured by the Superheater Company, a division of Combustion Engineering-Superheater, Inc. At the present time it is made in two sizes, the nominal capacities of which are 2,300 and 3,000 lb. per hour. Each will handle a 20 per cent overload for sustained periods in road service. Other sizes will be available shortly. The generator is shipped as a complete unit with all auxiliaries attached, ready for installation.

There are five main features incorporated in the Elesco steam generator. These are forced recirculation of water, preheating feedwater to steam temperature, deaeration of feedwater, simplicity of controls, and easy removal of steam generating elements.

Forced recirculation of the water in the steam generator and preheating of the feedwater to steam temperature before it enters the steam generating elements practically eliminates scale formation in the elements. Preheating the feedwater to steam temperature and passing it through a separator deaerates the

A paper presented at the January 20 meeting of the New York Railroad Club.

By J. F. GRIFFIN
Chief Engineer, Superheater Company, a Division of
Combustion Engineering-Superheater, Inc.

water, protecting the elements against corrosion. Simplicity of controls, in addition to promoting reliability, facilitates trouble-shooting and reduces maintenance. Provision for ready replacement of steam generating elements increases the availability of the locomotive and reduces maintenance costs.

Forced Recirculation

The most important feature of this steam generator is forced recirculation. Fig. 1 shows diagrammatically a motor which runs continuously at constant speed all the time the steam generator is in operation. It shows that a centrifugal circulating pump is direct connected to the motor and that the blower and oil pump are operated by the motor by means of belt drives. Obviously the centrifugal pump, the blower, and the oil pump are operated at a constant speed all the time the steam generator is in operation and this is true regardless of the quantity of steam being generated.

Fig. 2 shows diagrammatically the forced recirculation principle used. It should be noted that a centrifugal circulating pump is used solely for this purpose and is in addition to a feed pump. The feed pump, as the name implies, is used to supply the amount of make-up feed required to equal the steam output.

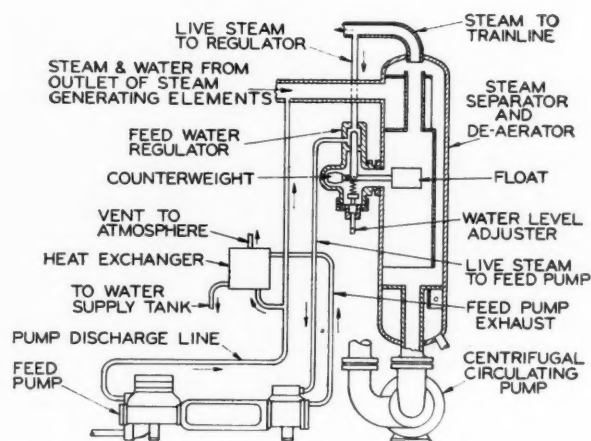


Fig. 3

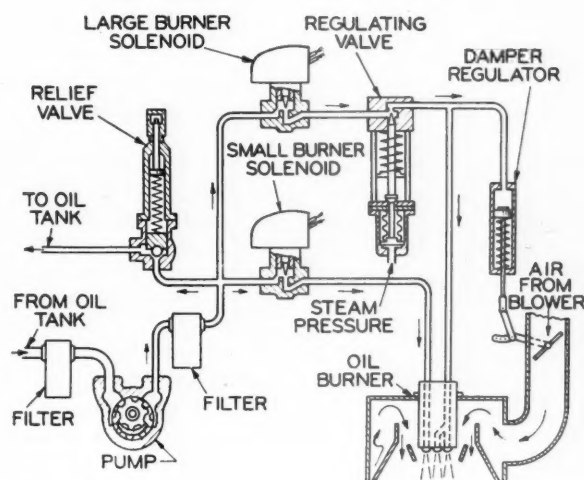


Fig. 4

Fig. 1—Diagram of motor-driven auxiliaries

Fig. 2—Forced-circulation flow diagram showing the steam separator and de-aerator, and the sludge-setting chamber

Fig. 3—Diagram of the feedwater regulating system

Fig. 4—Diagram of the fuel-oil and combustion-air system

Fig. 5—A section through the steam generator

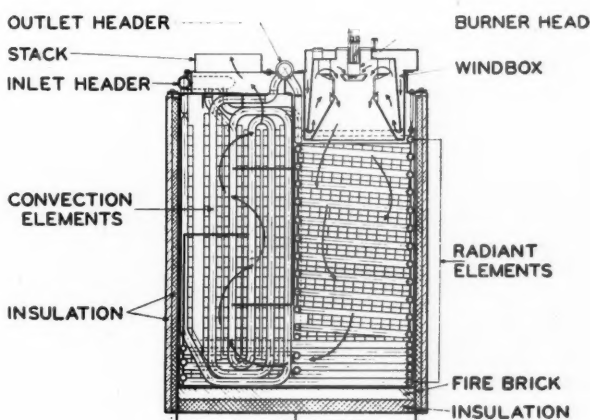


Fig. 5

Before the steam generator was designed, exhaustive scale-forming tests were conducted with steam-generating elements, using this principle of forced recirculation. During the scale-forming tests the circulating pump was operated at various capacities to determine the quantity of flow required practically to eliminate scale formation on the inside of the elements. From these tests it was determined that a circulation rate approximately ten times the maximum steam output to the train line provided a satisfactory margin of safety from a scale-forming standpoint. A slightly higher rate is being used in the steam generators.

Fig. 2 also shows that the constant-speed centrifugal pump takes water at steam temperature from the bottom of the steam separator and de-aerator and discharges it into an inlet header. This header feeds a number of steam generating elements. There are eight such elements in the M-2 3000 steam generator and seven in the M-2 2300.

At the entrance of each element is a metering orifice, the pressure drop through which is considerably higher than the pressure drop through the element. This insures a proper distribution of water through all elements. Note the difference in pressure in the inlet and outlet headers. The difference in these pressures is used to operate a differential valve. When the difference in pressures is not sufficient to insure desirable circulation, it automatically closes off the fuel supply.

This principle of forced recirculation has been used

quite extensively in Europe where there are approximately 2,000 such steam-generating units in operation. It not only affords a means of preventing or keeping scale formation at a minimum, but permits the design of a compact unit where space is limited because the steam-generating tubes can be arranged in any form desired and at the same time be provided with proper circulation.

The largest forced recirculation boiler built to date is at Somerset Station of the Montaup Electric Company, Fall River, Mass., which was installed during 1940-42. It was designed to generate 650,000 lb. of steam per hour at 2,000 lb. per sq. in. and 690 deg. F. The size and shape of the boiler were determined by the floor space and headroom available, and the decision to use forced recirculation was made because the desired output could be obtained in a limited space. A recirculation unit was installed for the Koppers Company in connection with the synthetic rubber industry. It generates 350,000 lb. of steam per hour at 800 lb. per sq. in. and 750 deg. F. Two circulating pumps were provided, each of which has sufficient capacity to operate the unit at maximum output. Both of these boilers were designed and built by Combustion Engineering-Superheater, Inc., which provided the back-

ground for the development of steam generators for use on Diesel locomotives.

Preheating and Deaerating the Feedwater

Fig. 2 shows that all of the steam-generating elements discharge into an outlet header, and it should be kept in mind that the mixture in this header is, at maximum steam output, approximately ten times as much water by weight as steam. At 1,000 lb. per hour steam output this proportion becomes approximately thirty times as much water as steam. The make-up feedwater enters the system at the outlet header. While traveling to the steam separator and deaerator the feedwater is heated to steam temperature. Preheating of the make-up feed speeds up tremendously the action of the water treatment so that scale-forming components are precipitated from the water and the rapid circulation keeps them in suspension until they can be settled out in the sludge chamber at the bottom of the steam separator and deaerator. Preheating of the make-up feedwater to steam temperature also provides a uniform temperature throughout the system, thus simplifying expansion problems.

Fig. 2 also shows how a constant filtering process

is in operation all the time the steam generator is in use. A small amount of water from the circulating-pump discharge enters the sludge chamber. Because of the low velocity through this chamber the sludge settles to the bottom and the clean water reenters the system at the outlet header. The sludge from the sludge chamber is automatically blown to atmosphere periodically. The frequency of blow is automatically varied in response to the amount of make-up water fed to the steam generator.

When the stop button is pressed, the burners shut off but the motor and, therefore, the circulating pump continue to run until the steam pressure drops to approximately 50 lb. This insures that the heat in the refractory brick in the bottom has been dissipated and all steam generation has ceased before recirculation is stopped. It also provides a thorough hot-water wash for the elements each time the steam generator is shut down.

The control of the feedwater is shown in Fig. 3. This device is simply a float counterbalanced so that vibration and shock at crossovers, etc., have no effect on it. During operation the water level is maintained at the float level. As the water level drops the float moves downward and increases the amount of steam supplied to the feed pump. This in turn increases the amount of water fed to the steam generator. As the water level rises, the reverse action takes place. There is no packing in the valve which regulates the steam flow to the pump, thus avoiding variations in friction and performance.

Fuel Oil and Combustion Air

Fig. 4 shows the fuel oil and combustion-air system. As previously stated, the blower and oil pump operate at constant speed. The oil-pump discharge line has a relief valve in it which permits excess oil to be returned to the oil tank. This valve maintains a constant pressure in the pump discharge line; however, the oil cannot reach the burner until the solenoid valves are opened. The first one to open when starting is the one to the small burner. This is an "all on" or "all off" burner operated by a pressure limit switch. In the 3,000-lb.-per-hour steam generator it is capable of generating a little under 1,000 lb. per hour. The fuel to the large burner is regulated by a valve acting in response to steam pressure on a bellows. As the steam pressure drops, the pressure of oil to the large burner is increased and, as the steam pressure increases, the pressure to the large burner is decreased. The burners are of the mechanical atomizing type, no air or steam being mixed with the fuel oil. The amount of oil burned is dependent upon the pressure at the oil tip; therefore, the regulator valve determines the amount of oil burned. As steam is drawn from the steam generator, it tends to lower the steam pressure. This causes the regulator valve to increase the oil pressure and, therefore, the amount of oil burned to maintain the steam pressure. As the oil pressure to the large burner changes, it operates the damper regulator to adjust the amount of air admitted to the burner. In this manner the proper amount of air is admitted to the burner to give satisfactory combustion.

When starting, the steam-generator control switch is set in the "starting" position and the start button is

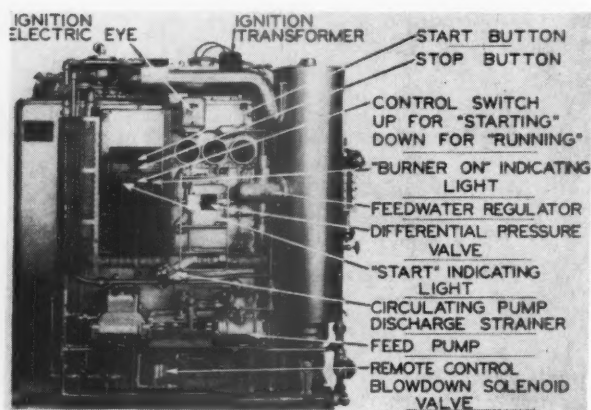


Fig. 6—Front view of the steam generator and its auxiliaries

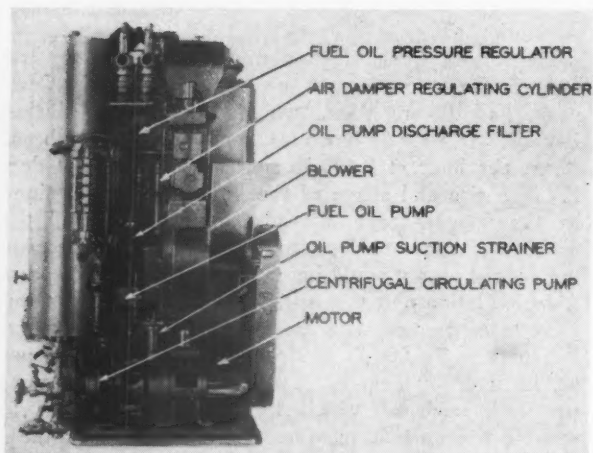


Fig. 7—Side view of the generator

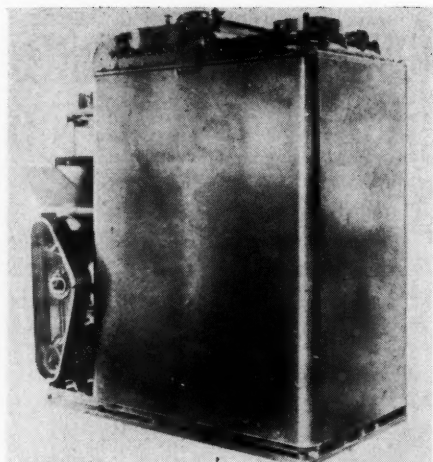


Fig. 8—(Left) There are no auxiliaries on two sides of the generator casing

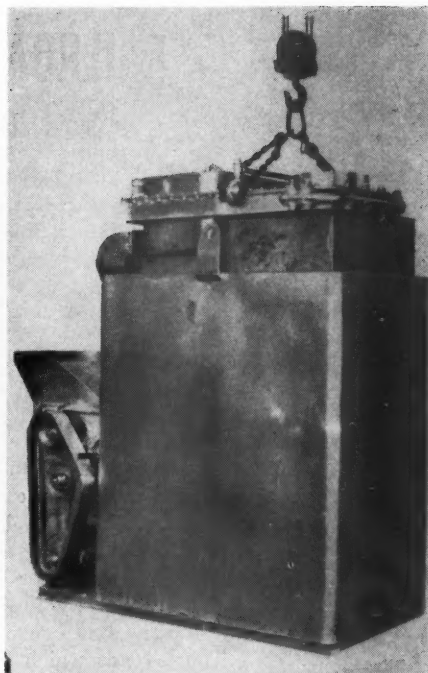


Fig. 9—(Right) Heating-surface elements being removed from the casing

pressed. This automatically starts the motor which operates the circulating pump, the blower, and the oil pump. At this point the operator checks the water level in the glass and, if more water is required to bring the water level to the top of the water glass, he opens a valve which operates the feed pump by compressed air. With the proper level secured, he then moves the control switch down to the "running" position. Since the motor already has been running for a few minutes, the blower has purged the steam generator of any gases that may have been present in the combustion chamber. In addition, there is an automatic time delay of five seconds after the control switch is placed in running position before ignition of the fuel oil takes place, thus insuring a thorough purging of the combustion chamber of excess gases. This is for the purpose of guarding against "flare backs."

The ignition converter then starts supplying the spark required for ignition, and at the same time the fuel-oil solenoid valve in the small-burner pipe line opens. If, after five seconds, the photo-electric cell in the electric eye has not "seen" a flame and taken over control to keep the fuel-oil solenoid valve open, the latter will automatically close, but if the electric eye has detected the flame it permits the fuel-oil solenoid valve to remain open. The ignition converter automatically shuts down, only coming into action when firing up.

After the steam pressure has reached 30 lb., the solenoid in the line to the large burner opens and this burner is ignited from the flame of the small burner.

Fig. 5 shows a section through the steam generator. The burner cone does not have any refractory, the alloy plates being cooled by air on its way to the burner. This figure shows the path of flow of the gases and it will be noted that the gases travel through a fairly long path with suitable baffling to insure efficient heat transfer.

Figs. 6 and 7 are front and side views, labeled to show the most important auxiliaries.

Fig. 8 shows a rear diagonal view from which it should be noted that two sides of the steam generator are free from auxiliaries, thus permitting it to be placed in a corner or against an end or side wall. Note particularly in this figure the row of bolts along the top edge of the casing of the body of the steam gen-

erator. The removal of these bolts, plus breaking of the inlet and outlet header joints, fuel-oil lines, the ignition wiring, and the air duct to the burner, permits lifting the entire assembly of the burner, inlet and outlet headers and steam-generating elements out through the hatch. A spare steam-generating surface can be used to replace the assembly. The steam-generating elements may then be repaired in the shop where there is room to work on them at the convenience of the shop, or returned to the manufacturer for reclaiming.

Fig. 9 shows the steam-generating surface, covered by a shrouding plate, partially withdrawn from the steam-generator body casing. This is accomplished without disturbing any of the auxiliaries on the front or side of the steam generator.

The principle of forced recirculation used in these steam generators has been proved to be highly successful in practically eliminating scale formation in the tubes over a period of about one and one half years of railroad service on several roads, having a fairly wide range of water conditions.

You have brought out three very important points during this discussion. First, the railroads are doing more research than ever before. Second, the results of this research, plus the hundreds of millions of dollars which the railroads are spending annually to improve their plant and services, have enabled the railroads to establish new records in efficiency. Third, there is no ceiling on railroad efficiency, and this efficiency will continue to increase. That's why America now has and will continue to have the greatest railroad transportation system in all the world.

—Albert R. Beatty, assistant vice-president, Public Relations Department, Association of American Railroads, in a radio broadcast over Station WLS, Chicago, during the Golden Anniversary convention of the American Railway Engineering Association.

RAILROADS PLAN 1949 CAPITAL EXPENDITURES TO EXCEED \$1,342 MILLION

Estimates indicate 127 Class I roads expect this year's outlays to be 9.4 per cent above those of 1948; 4 roads which submitted no 1949 estimates spent \$39.2 million last year

Class I railroads which have submitted estimates to the Interstate Commerce Commission's Bureau of Transport Economics and Statistics expect to make gross capital expenditures of \$1,341,939,422 in 1949, according to the latest issue of the bureau's "Monthly Comment." This would be an increase of 9.4 per cent above the \$1,226,701,304 spent by the 127 reporting roads in 1948, when all 131 Class I roads spent a total of \$1,265,869,546. The 4 roads which did not furnish estimates for 1949 made 1948 expenditures of \$39,168,242.

Territorially, the estimated expenditures for 1949 are higher than the actual outlays in 1948 by 38.8 per cent in the Southern region, 15.9 per cent in the Western district and 0.7 per cent in the Eastern district. The estimates for the Pocahontas region, however, show a decrease of 15.7 per cent—an expected drop from 1948's \$131,509,709 to \$110,892,730 in 1949. The estimated expenditures of the 127 reporting roads for the first six months of this year amount to \$745.9 million, or 36.1 per cent more than their actual expenditures of \$548.2 million in last year's first half.

"Actual gross expenditures of \$108.2 million reported for the month of January," the bureau continued, "were 26.4 per cent higher than in the same month of 1948. The January expenditures of \$23.4 million for road and \$84.8 million for equipment exceeded those of January, 1948, by 12.8 per cent and 30.8 per cent, respectively."

Outlays Planned for First Half

Equipment, which accounted for 74.5 per cent of the reporting roads' expenditures in the first half of 1948, is expected to represent 79.2 per cent of the total for the first half of this year. The table shows the actual and estimated expenditures for the first six months of 1948 and 1949, respectively, separated between road and equipment:

Actual and estimated gross capital expenditures Class I steam railways					Percentage distribution	
Period	Number of roads	Road	Equipment	Total	Road	Equipment
Actual:						
1st half 1948....	131	\$146,379,955	\$416,366,130	\$562,746,085	26.0	74.0
1st half 1948*..	127	139,720,905	408,450,874	548,171,779	25.5	74.5
Estimated:						
1st quarter 1949	127	66,507,045	295,338,281	361,845,326	18.4	81.6
2nd quarter 1949	127	89,022,654	295,088,234	384,110,888	23.2	76.8
1st half 1949....	127	155,529,699	590,426,515	745,956,214	20.8	79.2
Per cent increase:						
1st half 1949 over 1st half 1948*..	127	11.3	44.6	36.1	—	—

*Excludes 4 roads which did not furnish 1949 estimates.

Another article in the "Comment" presented figures on the "total income," i.e., gross revenues, of Class I roads, and the distribution of that income, in 1948 and previous years. The 1948 "income" was up 8.5 per cent from that of the previous year, but the total national income produced in the United States was meanwhile up 10.8 per cent. Thus the railroad proportion of the total declined from 2.89 per cent in 1947 to 2.83 per cent last year. As the bureau pointed out, this percentage "has shown a declining trend since World War I."

"Income" Produced in 1948

At the same time, the "Comment" continues, 1948 was the "best year of record" in terms of national income produced by the railroads and of compensation to railroad employees. The respective totals were \$6,349 million and \$5,007 million, the latter figure including "employee benefits" as well as wages. The bureau also pointed out that the wage increases which became effective late last year and the 40-hour week for non-operating employees, which is scheduled to become effective September 1, "will tend to raise labor's compensation and its proportion of income produced more in 1949 than in 1948."

The "compensation to employees" took 78.9 per cent of 1948's "total income," as compared with 80.8 per cent in 1947, 82.4 per cent in 1946, 63.1 per cent in 1929, and 72.6 per cent in 1919. Meanwhile, the "earnings on capital," which were 36.9 per cent of the 1929 gross, represented only 21.1 per cent of the 1948 gross.

This, however, represented an improvement over 1947 and 1946, when the respective percentages were 19.2 and 17.6. The bureau called 1948 a "good year in terms of dividends on capital and business savings (the undistributed balance of earnings after the deduction of interest, rents, and dividends); so good in fact that the total of these two items (\$718 million) exceeded the total for any peacetime year since 1929."

Comparing selected passenger traffic statistics for 1939 and 1948, the bureau showed in a third article that 41.9 per cent more coach passengers (excluding commuters) were carried last year than in 1939, while the number of passenger-miles in this service increased 118.7 per cent. The average journey per coach passenger per road was up from 55.6 miles in 1939 to 85.6 miles in 1948, or 54 per cent; passenger revenue from coach travel increased 177.5 per cent, from \$200.5 million to \$556.3 million; and the average coach fare as

reflected by the average revenue per passenger mile rose 27.2 per cent, from 1.8 cents to 2.29 cents.

Meanwhile, the percentage increases were lower for parlor and sleeping-car service. There the total number of passengers carried increased 39.4 per cent, passenger-miles rose 46.3 per cent, and the average journey per passenger was up only 5 per cent—from 379.4 miles to 398.3 miles. The carriers' revenue from parlor and sleeping-car traffic (railroad fares only — excluding Pullman charges) increased from \$175.3 million in 1939 to \$331.4 million in 1948, or 89.1 per cent; and the average revenue per passenger-mile for this traffic was up 29.2 per cent, from 2.33 cents to 3.01 cents.

Commuter travel, as measured by revenue passenger-miles, was 45.9 per cent heavier in 1948 than in 1939, the respective totals having been 4,012 million and 5,855 million. The railroads' revenue from this traffic was up 86.8 per cent, from \$40.8 million to \$76.2 million, while the average revenue per passenger-mile increased 27.5 per cent, from 1.02 cents to 1.3 cents.

Car-Mile Revenues and Expenses

Another comparison set up by the bureau was that of revenues and expenses per car-mile for the years 1948, 1947, and 1940. This showed that the per-car-mile revenue of freight and passenger services combined was 71.1 per cent higher in 1948 than in 1940—26.97 cents as compared with 15.76 cents. At the same time, car-mile expenses were up 83.8 per cent—from 11.33 cents in 1940 to 20.83 cents in 1948.

"An analysis of the principal expense items per car-mile for the same two periods," the bureau pointed out, "reveals increases of 45.3 per cent in depreciation, 122.9 per cent in fuel and power expenses, 84 per cent in employee compensation charged to operating expenses and 80.4 per cent in other expenses, largely for materials and supplies." The "Comment" went on to explain that the increase in car-mile depreciation charges "is partly attributable to the fact that depreciation accounting for certain items of roadway property became mandatory by order of the commission effective January 1, 1943."

The figures showed further that the 1948 passenger revenue per passenger carrying car-mile was 86.2 per cent above that of 1940, being up from 24.6 cents to 45.8 cents. At the same time, the revenue per freight-train car-mile (loaded and empty) was up 71.6 per cent—from 14.8 cents to 25.4 cents. In 1940 the per cent loaded of total freight car-miles was 61.8 as compared with 65.6 in 1948.

Shifts in the proportions of tonnage originated and gross freight revenue, by commodity groups, were pointed up in a fourth article, which made its comparisons on the basis of two prewar years, 1929 and 1939, and two postwar years, 1947 and 1948. The data showed that the Products of Mines group accounted for 55.1 per cent of the total tonnage originated in 1929, 1939 and 1947, and 56.1 per cent in 1948; but that group's contribution to total freight revenue dropped from 28 per cent in the two prewar years to 25.28 per cent in 1947 and to 24.96 per cent in 1948. In the case of the Manufactures and Miscellaneous group, which accounts for about one-fourth of the total tonnage originated, the 1948 proportion of total freight revenue was 45.41 per cent, as compared with 35.14 per cent

in 1929, 35.18 per cent in 1939, and 43.2 per cent in 1947.

As to three other groups—Products of Agriculture, Animals and Products, and L.C.L. Freight—their proportions to total freight revenues were smaller in 1948 than in 1929, 1939 and 1947. In the case of the Products of Forests group, the 1948 percentage exceeded that of 1939, being 6.38 as compared with 6.12. The proportion of total revenues contributed by the l.c.l. group dropped from 10.36 per cent in 1929 to 7.47 per cent in 1939, and to 6.28 per cent in 1948. Meanwhile, the l.c.l. group's proportion of total tons originated fell from 2.69 per cent in 1929 to 1.65 per cent in 1939, and to 1.21 per cent in 1948.

Freight Rates and Cost of Living

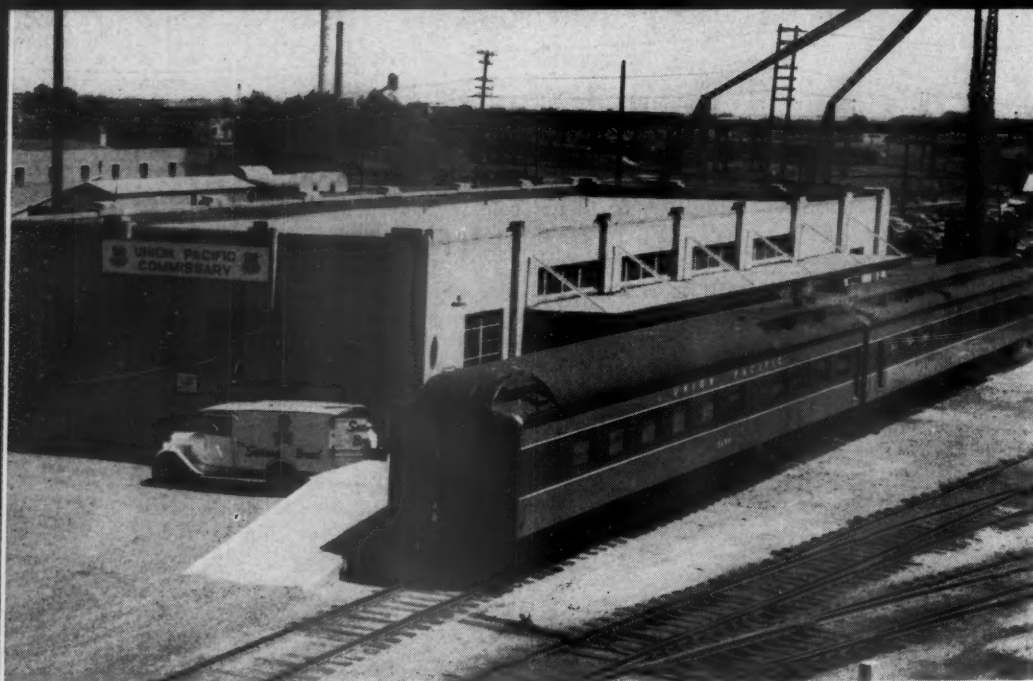
Another article presented and analyzed data on changes in railroad freight rates, the cost of living, and wholesale prices in the United States, Canada, and Great Britain during the 1938-1949 period. As to freight rates, the data showed that the latest general increase in Great Britain became effective October 1, 1947, and it made the rates 55 per cent higher than the 1938 basis. Up to that time, rates in this country had risen only 17.6 per cent above the 1938 basis, but subsequent increases, including the interim advance in Ex Parte 168 which became effective January 11, have put rates on a basis 51.7 per cent above the 1938 level.

The bureau found that two 1948 increases were the first general advances in Canada since 1922. Lacking official Canadian statements as to the net percentage increases resulting from the 1948 changes, the bureau calculated that the average 1948 revenue per ton-mile of Canadian roads was 23 per cent above that of 1938. This compares with a 26 per cent rise in the United States and one of 63 per cent in Great Britain.

These revenue-per-ton-mile indices were compared with indices of the cost of living and wholesale prices in the three countries. The showing as to the U. S. was that the 26 per cent increase in the revenue per ton-mile, between 1938 and 1948, compared with increases of 70 per cent in the cost of living and 110 per cent in wholesale prices. The showing as to Canada was that the 23 per cent increase in revenue per ton-mile compared with increases of 51 per cent in the cost of living and 95 per cent in wholesale prices. As to Great Britain, the 63 per cent increase in revenue per ton-mile compared with cost-of-living and wholesale-price increases of 72 per cent and 117 per cent, respectively.

Everybody pays taxes—but in some instances, the taxes paid are earmarked to be spent for the special benefit of those who pay them. That is not true of the taxes which railroads pay. They go to help support essential public services. Just the school taxes alone paid by railroads amount to enough each year to keep one million children in school. Almost the only essential public service to which railroad taxes do *not* contribute is railroad service itself. Railroad taxes help build and maintain waterways, airports and airways, and roads and highways—but railroad taxes are *not* spent on railroad tracks or terminals. Those, the railroads provide and maintain themselves.

—*The Railroad Hour*



The canopy-protected loading dock has an extension at one end where trucks can be unloaded

A MODERN COMMISSARY FOR DINING CARS



New facility built by the Union Pacific at Denver is designed for efficiency in handling, stocking and dispensing the supplies required in serving passengers on trains

A new dining-car commissary that is considered by officers of the road to be a model of operating efficiency has been placed in service by the Union Pacific at Denver, Colo. The new structure, which replaces an older facility, was built to service dining cars operated on trains running between Denver and Chicago and between Kansas City and the West coast, including the streamliners "City of Denver" and "City of St. Louis." It is one of five such commissaries maintained by the road, the others being at Omaha, Neb., Ogden, Utah, Los Angeles, Cal., and Portland, Ore.

Compact and Modern

While not unusual in size, the new commissary reflects modern construction, and has a compact arrangement, designed for maximum efficiency. Situated near the Union Station it is a one-story structure with a flat roof and is 48 ft. wide and 140 ft. long, with the latter dimension extending in an east-and-west direction. Construction features include a reinforced concrete foundation, a tan face-brick exterior, steel roof-support-



Above left—Steel skids in the storeroom keep boxes of supplies from contact with the floor

Left—Dining-car orders for canned and packaged foods are made up at this stocking counter

Top—Supplies for dining cars are moved by power dolly from the stocking counter to the loading dock

Center—There are four refrigerated rooms, of which one is for the storage of meat and fish

Below—A dining car steward, the storekeeper and a chef checking an order that is ready for loading

ing columns and beams, tongue-and-groove roof sheathing, tar and gravel finish on the roof, and steel sash for all the windows. Steam for heating the building is supplied from a central plant.

A concrete car-floor-level platform, 10 ft. wide, extends the entire length of the commissary on the south side and for a distance of 36 ft. beyond the west end, terminating in a ramp to the ground level. A canopy protects the loading dock, so that the work of stocking dining cars spotted on a flanking track can be carried on with virtually no interference from the elements.

The interior is divided into two major sections—the storeroom and the general office. Located at the east end, the office portion has 1,472 sq. ft. of floor space and includes crew dispatcher and crew reporting rooms, a private office and a large outer office. Admittance to this section is from the loading dock through the crew-reporting room. The office portion has a suspended ceiling; the walls and ceiling are plastered and the floor is covered with asphalt tile.

Rooms for Every Purpose

Facilities in the storeroom section include locker and wash rooms, a bar storage room, four refrigerated locker rooms, a refrigeration machinery room, a linen room, the storekeeper's office, and stocking counter and racks. This section is connected with the loading dock by two door openings, each 8 ft. wide and fitted with an overhead-type door. One of these doors opens into the general room at its east end and the other into the stocking space at the west end.

Metal stocking shelves are used, which are raised above the concrete floor. Also, all boxes of supplies are stocked on steel skids to keep them from contact with the floor. The supplies thus are protected from possible water damage, and cleaning is facilitated.

The bar storage room, in the northwest corner, is 12½ ft. by 18 ft. in plan. Flanking this room along the north side of the building are the four cork-insulated cold rooms; one for meat and fish (15 ft. by 14 ft.), one for vegetables and fruit (15 ft. by 12 ft.), a dry locker for dairy products (15 ft. by 9½ ft.); and a sharp freeze locker for frozen foods and meats (15 ft. by 8 ft.).

Perishables to be handled through the commissary are purchased locally and issued to dining cars daily, while all staples, canned goods and dry supplies are either purchased from local dealers or requisitioned from the road's central commissary at Omaha. Supplies of everything sufficient to last three or four days are kept on hand for emergency purposes. Approximately four tons of foodstuffs are issued from the commissary daily.



"FACT FINDERS" REJECT DEMAND FOR

Emergency board finds claim of B.L.E. to be without merit; refuses to meet brotherhood's request for recommendation, "mediatory in nature," as basis for "compromise" settlement

The emergency board, appointed by President Truman to investigate the demand of the Brotherhood of Locomotive Engineers for an additional engineer on Diesel-electric road locomotives, has recommended that the demand be rejected. The report, a document of 142 doubled-spaced, mimeographed pages, was submitted to the President on April 11.

In its single recommendation was stated as follows: "The board recommends against the amendment in existing schedules requested by the Brotherhood of Locomotive Engineers so as to insure the employment of a second or additional engineer in the enginerooms of Diesel-electric locomotives in conformance with the specifications submitted in the original notices, the memorandum of December 15, 1948, the modifications of January 13, 1949, and February 9, 1949, as further explained in the hearings and arguments before the board."

Members of the board were Chairman George W. Taylor, professor of labor relations, Wharton School, University of Pennsylvania; Grady Lewis, attorney, of Washington, D. C.; and George E. Osborne, professor of law, Leland Stanford University. The President's action in creating the board averted a strike of the B. of L.E. members which had been called for January 31. The same three individuals comprise another emergency board, created by a Presidential order of February 15, to investigate the dispute arising from the demand of the Brotherhood of Locomotive Firemen & Enginemen for an additional fireman on Diesel-electrics. Hearings in this firemen's case are scheduled to begin June 27 in New York.

Prior to the creation of the board to hear its case, the B. of L. F. & E. had sought to intervene in the B. of L. E. case, but the petition for intervention was denied by the board. Likewise denied was a similar petition filed on behalf of shop-craft employees by the Railway Employees Department, American Federation of Labor.

Demand "Unsupported"

Generally, the present report on the engineers' demand rejected as "entirely unsupported," or as "without significant support," all contentions whereby the B. of L. E. undertook to uphold the demand on its merits. Among other findings of the report was a conclusion to the effect that the B. of L. E. had "bargained away" its claim for an additional engineer during the 1943 and 1944 negotiations which resulted in the present working agreements. And the board also rejected the brotherhood's suggestion that, in any event, the board's report should not dispose of the case without making a recommendation which would be "mediatory in nature," and would thus "assist in bring-

ing about a collective bargaining agreement between the parties." That suggestion was embodied in what the brotherhood called its "final statement of principle."

"It is true," the report said of the suggestion, "that, in collective bargaining, the negotiating parties commonly work out compromise solutions to problems. Nor is that merely a 'splitting of the difference' without rhyme or reason. The compromise solution is the essence of collective bargaining as respects subjects in which real rights and real equities possessed by both parties have to be reconciled in order that a meeting of minds may result. But contentions and positions are commonly abandoned in collective bargaining, just as the B. of L.E. unmistakably abandoned its claim for an assistant engineer during the negotiations in 1943 and 1944. . . . That claim is no more tenable today than it was then. As a matter of fact, it is less tenable today because it was bargained away in 1943 and 1944.

"We cannot recommend a change in existing schedules so as to effectuate, in whole or in part, the request of the B. of L. E. for employment of an additional engineer in the engineroom of Diesel-electrics because of our unqualified conviction that the engineers have no equitable claim to such employment. In the absence of such equitable claim, we believe it would be not only contrary to our duty but also destructive of genuine collective bargaining to recommend a 'compromise settlement.' The effectiveness of collective bargaining and of the disputes settlement machinery of the Railway Labor Act depends upon results that are protective of the equities and of the fundamental interests of both the organizations and the carriers."

Phase of Old "Diesel Question"

Meanwhile, the report had got under way with an outline of the background of the dispute. There the proceeding was identified as "a phase of what has come to be known as 'The Diesel Question.'" That question came to the fore about 1935 and gave rise to various controversies which finally came before an emergency board, created on February 20, 1943, and commonly referred to as the "1943 Diesel Board." That board recommended that two men be in the cab at all times on high-speed, mainline passenger trains; and that, if this required an extra man on the locomotive, he should be taken from the ranks of the firemen (see *Railway Age* of May 29, 1943, page 1092).

Agreements on that basis were made by the railroads with the B. of L. F. & E., and also new agreements were made with the B. of L. E. The latter contended in the present case that those new agree-

EXTRA ENGINEER ON DIESELS

ments contained language which justified their demands for an additional engineer. The language thus relied upon included statements to the effect that the "duties and responsibilities of engineers will not be assigned to others," although there were also in the agreement other stipulations to the effect that the agreement did not require an additional engineer on Diesels which were operated from one cab with one set of controls.

The "Narrow Issue"

After considering both the B. of L. E. and B. of L. F. & E. agreements, the notices serving the engineers' demands, and the statements of B. of L. E. officers at the hearing, the board came to a brief statement of the issue in the case. "The narrow issue before us," the report said, "is whether or not preservation of the established craft rights of engineers supports the B. of L. E. claim for an additional engineer who shall be made solely responsible for the engineroom while the train is en route and who shall either perform or supervise the engineroom work. Is approval of this proposition essential to the preservation of established craft rights of engineers?"

The board then proceeded to appraise the demand on various bases, the first of which involved an examination of carrier rules, operating practices and discipline policies to determine whether the craft rights claimed by the engineers "were traditionally performed by them or required of them by the carriers." The answer was in the negative, the board having found that "the application of carrier-imposed rules, practices and policies does not, and may not, give foundation to the demand here made."

The report next reviewed the early development of the Diesel question to determine whether or not the engineers "uninterruptedly achieved or pursued a claim to the traditional craft rights, as stated by them, in the operation of Diesel-electric locomotives." This review also led the board to a conclusion adverse to the B. of L. E. contentions.

"The board finds," the report said, "that the craft right claimed by the B. of L. E. in this proceeding has not been vigorously and uninterruptedly insisted upon by the engineers as their organization has contended before us. The facts are overwhelmingly to the contrary. The right of engineers either to perform engineroom work or to supervise such work by continuous personal observation was not even suggested by the organization in the various early negotiations with respect to manning Diesel-electric locomotives. Nor was any right of the engineers actually to perform engineroom work recognized in the early agreements made to deal with the Diesel question. But the right of the fireman to give unsupervised attention to the engineroom machinery while the locomotive is en route was specifically included in B. of L. F. & E. agreements with the acquiescence of the B. of L. E.

"Any claim of the engineers for an additional engineer . . . was, moreover, conclusively and affirmatively bargained away by them in the negotiations in which the current schedules were formulated. . . . There is not the shadow of a doubt about the facts that, in the 1943 and 1944 agreements, the B. of L. E. bargained away any claim for an assistant engineer to perform or to supervise work in the enginerooms, and that they intended to do so when they entered into these agreements.

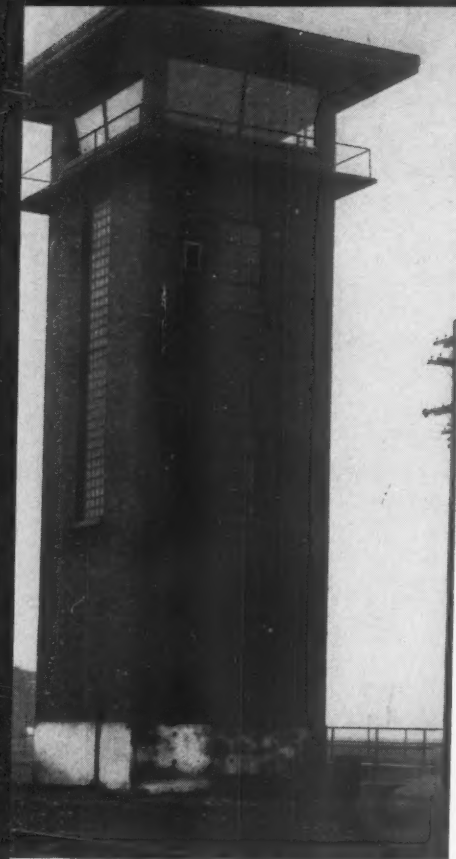
"We recognize that . . . the B. of L. E. may reassert a claim that it had previously bargained away or abandoned. Under these circumstances, however, the emphasis shifts to the intrinsic merit of the claim and, in this case, away from preservation of established craft duties and responsibilities which has been urged by the B. of L. E. as the principal motivating force behind its claim. The history of the previous bargaining, in which the claim was abandoned, becomes one of the factors important in appraising the equity and reasonableness of the organization purpose to reinstitute the claim."

In its further appraisal of the claim on the basis of its "intrinsic merit," the board gave "particular attention," as the report put it, to the contention that a second engineer is justified, apart from any traditional craft rights, because of the contribution to be made to the safe and efficient operation of the locomotives. This was the contention which the board found "entirely unsupported" by the evidence.

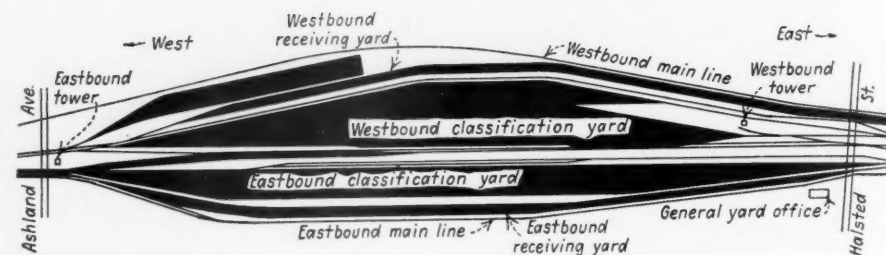
The report's earlier discussion of this safety phase, had referred to the "considerable time" spent at the board's hearings in a discussion of a freight wreck. After the accident the body of the fireman was found under one of the Diesel units, making it "probable, although not entirely certain," the board said, that he was not in the cab at the time of the accident. The board assumed that the evidence relating to this wreck was introduced "to show that the employment of an engineer in the engineroom would have somehow prevented the accident."

"To have relevancy for this point," the report added, "it has to be assumed that such employment would have resulted in the fireman being in the cab at the time and that if he had been the accident would not have occurred. The last is pure guesswork. Both engineers and carriers agree that the cause of the accident will never be known. It is possible that, had the 'dead man' pedal not been disconnected at the insistence of the engineers on the road, the accident would not have occurred. It seems probable, although of course only a guess, that both the head-end brakeman and engineer were unconscious at the time of the accident. It could have been the fireman and the engineer who became unconscious at the same time. . . . But all of this speculation is irrelevant. The engineers' proposal would not have had any effect upon the present duties of the fireman."

Finally, the report disposed of the B. of L. E. request for recommendations "mediatory in nature," as noted above. The report's summary statement of that determination included an expression of the board's belief that "it would be highly improper to recommend rights for one party, wholly unsupported by the facts, solely on an assumption that demands will be adamantly pursued at any event."



Left—One of the two new communication towers, which are identical in construction.



Above—Plan of Barr yard

B. & O. YARD SPEEDS

The Baltimore & Ohio's recently completed Barr yard at Riverdale, Ill. (Chicago), built at a cost of \$3,852,000, is producing estimated savings in operating expenses of approximately \$230,000 annually. Of equal importance, the new yard again gives the B. & O. its own Chicago facility. Further, it is expediting traffic and giving shippers the kind of service they want—the kind of terminal handling that makes the most of good road performance.

The Chicago yard facilities of the B. & O., operated by the Baltimore & Ohio Chicago Terminal, have long included Robey, Forest Hill, East Chicago, and Barr. In the depression year 1934, shortly after the B. & O. took control of the former Alton, much of its yard activities were transferred to the road's Glenn yard, 17 rail miles northwest of Barr. Traffic volume has since increased and the Alton has been merged with the Gulf, Mobile & Ohio, and the B. & O. consequently found it desirable to withdraw from its tenant status at Glenn and modernize one of its own yards. Barr was chosen because of its favorable location in relation to connecting lines, its unencumbered possibilities for future expansion, and its easterly position—20.4 rail miles from Chicago's Grand Central station—on the B. & O. main line.

The reduction in operating expenses — nearly a quarter of a million dollars annually—results from (1) employment of modern equipment and yard practices; (2) elimination of charges paid for use of Glenn yard; (3) reduced wheelage charges paid in reaching the former facility; and (4) reduced trackage charges in making deliveries to connecting carriers. These savings far more than offset costs of maintenance of additional trackage at Barr yard, operating expenses, taxes on the additional facilities, and increased wheelage charges on a few connecting line deliveries.

Barr yard is located at a focal point on the Baltimore & Ohio Chicago Terminal, with lines radiating north, east, south and west therefrom. Its function is not only to receive, classify and dispatch B. & O. road freight trains, but also to classify the internal traffic of the B. & O. C. T., which operates as a separate entity and handles a large volume of Chicago's belt and switching traffic. There are separate receiving and classification yards for eastbound and westbound traffic, each dominated by a 60-ft. communication tower. These yards are skirted on the north and south sides, respectively, by the westbound and eastbound running tracks. Both classification yards are of the "saucer" type, in which flat switching is employed. The tracks descend on a grade of about 0.2 per cent from the ladder tracks at each end and flatten out toward the center of the yard. Standing capacities of the various track groups are as follows:

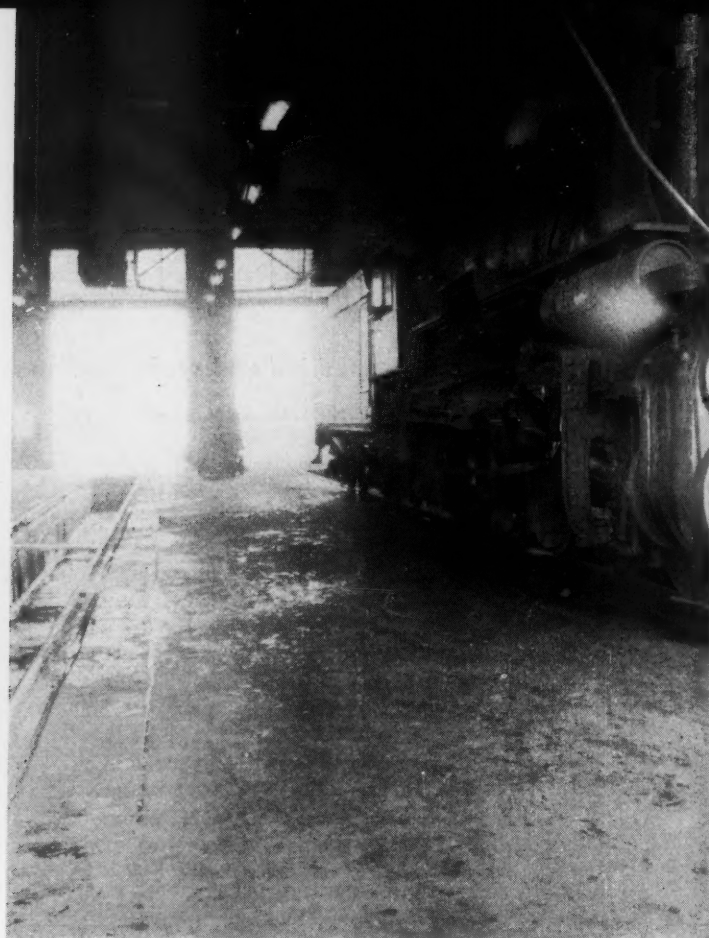
	Tracks	Cars
Eastbound receiving	5	345
Eastbound classification	15	1,144
Westbound receiving	6	500
Westbound classification	26	1,209
Total		3,198

Nine roads enter Barr yard under trackage agreements to effect interchange with the B. & O. The B. & O. C. T. sends out about 12 transfer runs daily to interchange with the other 26 Chicago railroads. Most expedited of the Barr yard interchanges is that maintained with the Indiana Harbor Belt, via Harvey Junction, to and from that road's adjacent Blue Island yard. Cut-off time for I. H. B. cars for eastbound B. & O. No. 92, for example, is 9:15 a.m.; No 92 departs at 9:50 a.m.

All New Servicing Facilities

The yard's engine-servicing tracks lead eastward from scissor tracks progressively past a coaling and sanding station, water plugs, all-electric ash-handling plant, and Diesel fueling standards, into a three-track, through-type enginehouse. At the north side of the enginehouse is a small machine shop equipped for ordinary locomotive maintenance and light repair work. The three enginehouse tracks lead to a 115-ft. turntable.

A 4-track 110-car repair yard lies between the east-



Left—J. H. Wallis, communications engineer, and L. J. Prendergast, superintendent of communications of the B. & O., at one of the 197 two-way, talk-back loud-speakers. Mr. Prendergast is operating the push button to signal the yardmaster that he wishes to talk to him. Right—Interior of the steam servicing portion of the straight-line enginehouse

day in contacting switching crews on the ground. They are able to reach any member of a crew in a matter of seconds. This has expedited yard operations tremendously. The loud-speakers have proved especially helpful when normal visibility from the towers is obstructed by fog. Fifteen to twenty minutes are being saved by every eastbound train entering the yard. With loud-speakers at the entrance of the yard, the yardmaster is able to inform incoming road or transfer crews exactly where the train is to go in the yard, thus enabling it to proceed without lagging along in uncertainty. Similarly, the departure of trains from the yard has been expedited. These are but a few advantages of the new facilities.

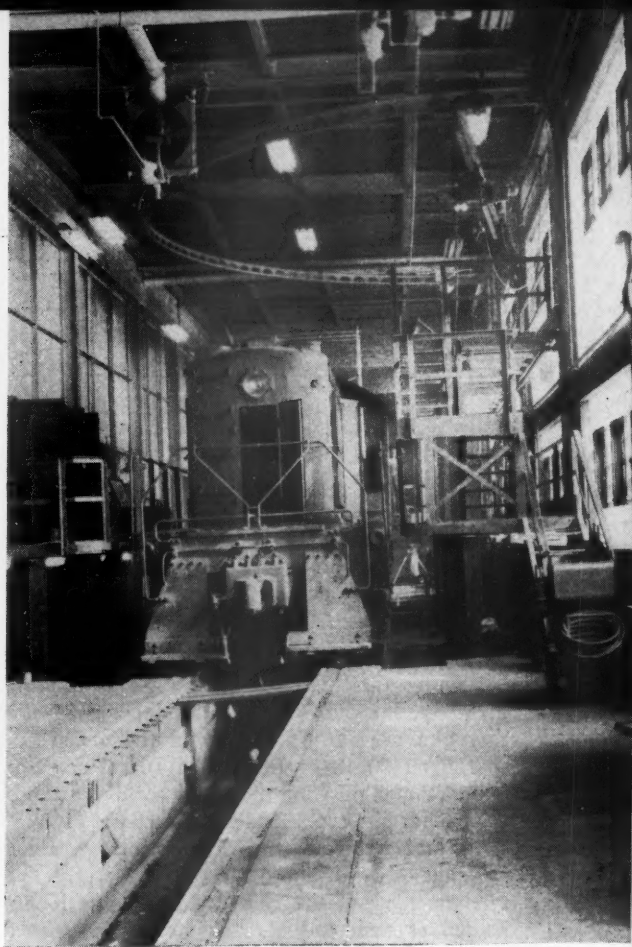
There are 197 two-way talk-back speakers and 50 paging speakers in the network, the control of which is divided between (1) the tower in the eastbound classification yard and (2) the tower in the westbound classification yard, the distance between which is one mile. Each tower has a complete control panel with keys, indication lamps, loud-speakers, microphones and other equipment for operation of the loud-speakers throughout the portions of the yard under its jurisdiction.

The majority of the talk-back speakers are located along the ladder tracks on masts about 8 ft. high, thus enabling directions to be given and received by switchmen on the ground in these areas. These speakers, which consist of two units mounted back-to-back, have a range of about 100 ft. to each side of their locations, depending upon ambient noise present, and are spaced

about 77 ft. apart. Ground crews are thus able to talk to the yardmasters without having to go to any one speaker. Talk-back speakers are also located at other strategic points throughout the yard, and there are "interchange" speakers at each end of the yard, the purpose of which is to enable crews to obtain clearance for trains just passing through the yard. To keep unauthorized people out of the towers, there is a talk-back speaker outside each tower beside the door on the ground floor. Anyone wishing to enter the tower signals the yardmaster and identifies himself, after which an electric lock on the door may be released by the yardmaster from his communication control panel.

If the yardmaster desires to call a specific member of a crew, but does not know the man's immediate whereabouts, he uses the paging speakers to call him. This man then goes to the nearest talk-back location and signals the yardmaster by pushing a button. This lights a lamp on the yardmaster's control panel, indicating he is being called, and the necessary conversation takes place.

The paging speakers are divided into groups, each made up of a cluster of speakers. Four paging groups, involving 30 speakers, are controlled from the westward tower, and three groups, with a total of 20 speakers, from the eastward tower. In planning this paging system, the industrial and residential surroundings were carefully considered to avoid public disturbance. There is no master paging provision in this yard—only by groups. This matter was considered by operating officers of the road, and the group



Left—The power-operated ash-loading unit, showing the bucket in the dumping position. Right—The Diesel portion of the enginehouse, showing the working platforms, the lighted pit, and the electric hoist

arrangement was chosen as the most practical to meet local requirements. There are no occasions when it is necessary to page the entire yard at one time.

Telephone Service

As part of the project, a new 38-line PBX switchboard was installed in the general yard office building. This exchange affords complete telephone service between the towers and all principal offices around the yard, as well as outside. In addition to having this service in the towers, there are connections on the train dispatching telephone circuits.

Each tower is equipped with a teletype machine. The general yard office has four such machines—two for service between that office and the yard towers, and two for service between that office and the general telegraph office at Grand Central Station in Chicago. Train consists originating at various points on the Baltimore & Ohio system come into Grand Central, are relayed to Barr, and thence to the towers. Thus, the yardmasters in the towers receive the consists well in advance of the arrival of trains, have plenty of time to look them over, and are ready to work the trains when they arrive. Consists are also handled by the printing telegraph service in the reverse direction to Grand Central for transmission to Pittsburgh, Baltimore, New York and other points on the railroad.

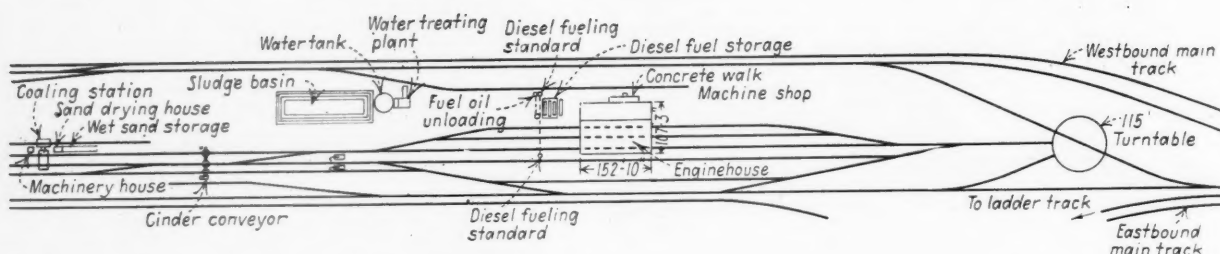
In addition to these communication facilities, there is a separate interoffice communicating system in service. This system includes desk-type units for two-way

conversation between the trainmaster's office, general yardmaster's office, agent's office and the two towers. The system is used for calls pertinent to operation of the yard, and avoids tying up PBX telephone lines during extended conversations. Barr yard is thus fully equipped with the fastest and most modern means of communication. Further details with respect to the technical aspects of the facilities appeared in the April issue of *Railway Signaling and Communications*.

These communications were planned and placed in service by the communications department forces of the railroad, under the jurisdiction of A. S. Hunt, chief engineer — communications and signals, and L. J. Prendergast, superintendent of communications, and under the immediate supervision of J. H. Wallis, communications engineer. The major items of loud-speaker communication equipment—control panels, amplifiers and outside loud-speakers, as well as the independent interoffice communicating system — were furnished by the Electronic Communication Equipment Company. The underground cable, of which 37 mi. was used, was furnished by the Okonite Company.

Locomotive Servicing Facilities

Locomotive servicing facilities comprise a straight-line enginehouse, with necessary fueling, ash-handling, lubrication and sand storage equipment, built at a total cost of \$650,000. From this layout are dispatched a daily average of 33 locomotives—8 B.&O.C.T. Diesel switchers, 17 B.&O.C.T. steam switching and transfer



Layout of service facilities in the vicinity of the enginehouse

locomotives, and 8 B.&O. road freight steam locomotives. Engaged in this work are 4 foremen, 24 mechanics and 22 helpers.

The enginehouse is of brick and glass-block construction, with three servicing tracks, two for steam locomotives and one for Diesels. The building is 152 ft. 10 in. long, 107 ft. 3 in. wide, and 32½ ft. high. The pits are 120 ft. long, and the steam tracks are spaced on 20 ft. centers. The Diesel servicing track is partitioned off from the steam section of the building. The steam pits are 3 ft. deep, the Diesel pit is 3 ft. 6 in. deep, and all are 4 ft. wide. All entrance doors have a height of 17 ft. above the ties and are of the folding type opening at the center. A Coppus blower is installed at each end of each steam track for firing-up steam power.

Equipment outside the enginehouse includes a 250-ton coaling station with 25-ton sand storage space; three 10,000-gal. Diesel fuel storage tanks; and a power-operated ash-loading unit. The coaling and sanding facilities service four tracks, and ash pit facilities serve three tracks. A 10,000-gal. lubricating oil tank is located under the floor in the Diesel portion of the enginehouse.

The pit in the Diesel section of the house is illuminated by lights recessed into the walls. This section also has two-level servicing platforms, and the working area is served by an overhead electric hoist. In the hoist arrangement, there is a semi-circular overhead track to which is attached an I-beam, one end of which is pivoted on one wall, while the other end moves on the semi-circular track. The I-beam supports the traveling electric hoist, which can thus be spotted over any part of a Diesel switcher. These facilities handle 16 Diesel switching locomotives for all routine maintenance work, including monthly inspections and repairs required by law. For wheel or traction-motor changes, the locomotives are sent to Robey street, where drop pits are available.

The machine shop at Barr contains the following equipment; it is used for both steam and Diesel work:

One bushing press	One grinder
One 1-ton jib crane	One 36-in. by 15-ft. lathe
One 18-in. lathe	Two radial drill presses
One 24-in. shaper	One 15-in. drill

All regularly scheduled B.&O. freight trains between Chicago and Willard, Ohio, are handled by T-3 Class 4-8-2 steam locomotives. These locomotives operate between these two points without change en route and have tonnage ratings up to 7,000 tons. They are part of a lot of 40 such locomotives recently completed at the road's Mt. Clare shops, Baltimore, Md. They carry 25 tons of coal and 20,000 gal. of water, have 65,100-lb.

tractive force, 70-in. drivers, and carry 230-lb. steam pressure.

The T-3's are maintained at Willard and are given turn-around service at Barr yard. The average mechanical delay from arrival with trains to complete readiness for service is 3½ hr. During this time they are coaled and sanded, the fires are drawn, they are put in the house for inspection, greasing, oiling, light mechanical repairs and firebox interior work, and are fired up for service.

Car Repair Facilities

An average of 2,500 to 3,500 cars a day are handled in interchange movement at this yard. About 75 cars a day are repaired on the rip tracks, and an average of 55 train yard repairs are made daily. This work is done by 180 men, 49 of whom are in the operating force, including 10 men on the second shift to make repairs to cars carrying perishable goods, live stock and other food products, that may be found to be bad ordered in the evening deliveries. In the transportation yards the remaining 59 men are divided among the three shifts for inspection, lubrication and making train yard repairs.

The facilities for handling car repairs include a shop track building with an office, washroom, locker room, tool room, store room, blacksmith shop and oil house. There are also various outdoor material platforms and a boiler room for heating purposes. Included in the facilities to operate the shop efficiently are a drill press, a bolt and pipe cutting and threading machine, a grinder and a power saw. All the machines except the drill press are portable for movement where needed.

The car repair area includes four tracks, numbered 1 through 4. Tracks Nos. 1 and 2 are used for westbound loads and empties; Nos. 3 and 4 for eastbound loads and empties. Tracks No. 1 and 2 are 1,676 ft. long and have a capacity of 22 cars each. Tracks 3 and 4 are 2,174 ft. long and have a capacity of 32 cars each. All tracks are adjoined by concrete platforms 10 ft. wide. The layout of the repair tracks and the concrete runways provides sufficient space for parts removal and repair and for the operation of the necessary material-handling equipment.

Barr yard was designed and constructed under the general direction of A. C. Clarke, chief engineer of the Baltimore & Ohio, Baltimore, and G. P. Palmer, regional engineer construction and maintenance, Chicago. Properties in the Chicago area are under the direction of L. E. Thornton, superintendent, and activities at the yard are under the direct supervision of C. K. Strader, assistant superintendent.

JANUARY PURCHASES \$187 MILLION

A.A.R. figures for the year 1948 show buying of materials, supplies and fuel reached a new high of \$2,183 million, exceeding \$2 billion for the first time

1949 RAILWAY PURCHASES*

	January 1949 (000)	January 1948 (000)
Equipment**	\$ 7,372	\$64,827
Rail	7,361	7,409
Crossties	7,632	5,623
Other Material	98,681	92,795
Total from Manufacturers	\$121,046	\$170,654
Fuel	66,509	73,733
Grand Total	\$187,555	\$244,387

*Subject to revision

**Amount placed on order

In the first month of this year, the estimated total of railroad purchases of materials, supplies and fuels, plus equipment orders, was \$187,555,000. Although this amount is considerably under the equivalent figure for January, 1948, the low volume of equipment orders was entirely responsible, because expenditures for materials, supplies and fuel actually were up slightly from January last year. Purchases of miscellaneous materials and crossties accounted for this increase, for both rail and fuel buying fell off from January, 1948, the former by only a few thousand dollars and the latter by more than \$7 million.

January, 1949, equipment orders totaled \$7,372,000. Included in these figures are \$100,000 (estimated) for one passenger car, and \$7,272,000 for 1,818 freight cars. No locomotives were ordered during January.

Final 1948 Figures

The annual summary of Class I railroad purchases of materials, supplies and fuel for 1948 has been made public by the Association of American Railroads. The member roads spent a total of \$2,183,331,000 for the supplies necessary to operate their lines. (This amount was \$42,725,000 less than *Railway Age's* estimate of \$2,226,056,000, made in mid-December and published in the January 8, 1949, issue, page 202. Our estimate was in error 1.95 per cent.) The amount expended was \$274,122,000 more (14.4 per cent) than was spent for similar supplies during 1947.

The A.A.R. tables reveal that expenditures for most classes of material were substantially greater in 1948 than in 1947; though some decline was experienced in several groups. One of these was forest products, particularly ties and bridge timber. Unavailability and unwillingness to buy at high tie prices contributed to

this decline, as did the lower lumber prices during the last few months of 1948. Shortages of flues and tubes contributed to a decrease in purchases of these items. Total outlays for iron and steel products, however, were up more than \$115 million from 1947, reflecting price increases, new construction and, of course, an increase in car building activities by railroad shops.

JANUARY* PURCHASES OF MANUFACTURED GOODS (EXCL. EQUIP. & FUEL)

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1943	\$57,848	+97	Feb. '48	\$103,390	+10
1944	78,305	+45	Apr. '48	115,904	-2
1945	77,944	+46	June '48	118,106	-4
1946	77,855	+46	Aug. '48	119,573	-5
1947	97,962	+16	Oct. '48	126,855	-10
1948	105,827	+7	Dec. '48	122,101	-7
1949	113,674	-	Jan. '49	113,674	-

JANUARY* PURCHASES OF RAIL

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1943	\$4,811	+53	Feb. '48	\$8,200	-10
1944	6,423	+15	Apr. '48	5,431	+36
1945	5,734	+28	June '48	7,803	-6
1946	5,089	+45	Aug. '48	9,049	-19
1947	7,723	-5	Oct. '48	9,427	-22
1948	7,409	-1	Dec. '48	8,664	-15
1949	7,361	-	Jan. '49	7,361	-

JANUARY* PURCHASES OF CROSSTIES

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1943	\$4,037	+89	Feb. '48	\$4,630	+65
1944	6,895	+11	Apr. '48	5,933	+29
1945	5,601	+36	June '48	7,028	+9
1946	5,822	+31	Aug. '48	9,106	-16
1947	7,421	+3	Oct. '48	9,867	-23
1948	5,623	+36	Dec. '48	8,960	-15
1949	7,632	-	Jan. '49	7,632	-

JANUARY* PURCHASES OF OTHER MATERIAL

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1943	\$49,000	+101	Feb. '48	\$90,560	+9
1944	64,987	+52	Apr. '48	104,540	-6
1945	66,609	+48	June '48	103,275	-4
1946	66,944	+47	Aug. '48	101,418	-3
1947	82,818	+19	Oct. '48	107,561	-8
1948	92,795	+6	Dec. '48	104,477	-6
1949	98,681	-	Jan. '49	98,681	-

*Subject to revision

JANUARY* PURCHASES OF FUEL

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1943	\$39,883	+ 68	Feb. '48	\$70,438	— 6
1944	50,341	+ 32	Apr. '48	58,478	+14
1945	47,826	+ 39	June '48	74,586	—11
1946	51,312	+ 30	Aug. '48	70,679	— 6
1947	59,602	+ 12	Oct. '48	68,751	— 3
1948	73,733	— 10	Dec. '48	70,677	— 6
1949	66,509		Jan. '49	66,509	

JANUARY* TOTAL PURCHASES (EXCL. EQUIP.)

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1943	\$ 97,731	+ 84	Feb. '48	\$173,828	+ 4
1944	128,646	+ 40	Apr. '48	174,382	+ 3
1945	125,770	+ 43	June '48	192,692	— 6
1946	129,167	+ 39	Aug. '48	190,252	— 5
1947	157,564	+ 21	Oct. '48	195,606	— 8
1948	179,560		Dec. '48	192,778	— 7
1949	180,183		Jan. '49	180,183	

JANUARY* INVENTORIES OF RAIL

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
Jan. 1, 1943	\$18,131	+ 83	Feb. 1, '48	\$36,120	— 8
1944	22,342	+ 49	Apr. 1, '48	36,572	— 9
1945	24,292	+ 37	June 1, '48	30,767	+ 8
1946	24,840	+ 34	Aug. 1, '48	30,005	+11
1947	30,192	+ 10	Oct. 1, '48	33,163	
1948	32,924	+ 1	Dec. 1, '48	32,401	+ 3
1949	33,243		Jan. 1, '49	33,243	

JANUARY* INVENTORIES OF CROSSTIES

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
Jan. 1, 1943	\$52,977	+ 78	Feb. 1, '48	\$93,492	+ 1
1944	67,964	+ 39	Apr. 1, '48	96,782	— 3
1945	72,434	+ 30	June 1, '48	86,548	+ 9
1946	72,519	+ 30	Aug. 1, '48	77,952	+21
1947	83,891	+ 12	Oct. 1, '48	79,148	+19
1948	92,300	+ 2	Dec. 1, '48	83,219	+13
1949	94,256		Jan. 1, '49	94,256	

*Subject to revision

JANUARY* INVENTORIES OF OTHER MATERIAL

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
Jan. 1, 1943	\$375,376	+ 63	Feb. 1, '48	\$570,201	+ 7
1944	382,566	+ 60	Apr. 1, '48	587,390	+ 4
1945	437,575	+ 40	June 1, '48	607,278	+ 1
1946	435,326	+ 41	Aug. 1, '48	614,271	
1947	476,625	+ 28	Oct. 1, '48	611,887	
1948	560,703	+ 9	Dec. 1, '48	617,682	— 1
1949	611,864		Jan. 1, '49	611,864	

JANUARY* INVENTORIES OF SCRAP

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
Jan. 1, 1943	\$ 9,805	+ 92	Feb. 1, '48	\$13,336	+41
1944	9,628	+ 96	Apr. 1, '48	15,783	+19
1945	10,155	+ 86	June 1, '48	13,993	+35
1946	11,258	+ 67	Aug. 1, '48	14,857	+27
1947	12,572	+ 50	Oct. 1, '48	14,378	+31
1948	13,225	+ 43	Dec. 1, '48	15,837	+19
1949	18,849		Jan. 1, '49	18,849	

JANUARY* INVENTORIES OF FUEL

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
Jan. 1, 1943	\$47,612	+103	Feb. 1, '48	\$66,727	+45
1944	50,221	+ 93	Apr. 1, '48	64,153	+51
1945	59,182	+ 64	June 1, '48	72,512	+34
1946	51,816	+ 87	Aug. 1, '48	86,636	+12
1947	49,873	+ 94	Oct. 1, '48	95,874	+ 1
1948	66,388	+ 46	Dec. 1, '48	95,052	+ 2
1949	96,900		Jan. 1, '49	96,900	

JANUARY* TOTAL INVENTORIES

Jan. '49 Compared to Other Jans. (000)			Jan. '49 Compared to Other Months '48 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
Jan. 1, 1943	\$503,901	+ 70	Feb. 1, '48	\$779,876	+10
1944	532,721	+ 61	Apr. 1, '48	800,680	+ 7
1945	603,638	+ 42	June 1, '48	811,098	+ 5
1946	595,759	+ 44	Aug. 1, '48	823,721	+ 4
1947	653,153	+ 31	Oct. 1, '48	834,450	+ 3
1948	765,540	+ 12	Dec. 1, '48	844,191	+ 1
1949	855,112		Jan. 1, '49	855,112	

PURCHASES OF FUEL, MATERIAL AND SUPPLIES

Railways of Class I—Calendar Years 1948 and 1947

Item	1948	1947
Fuel:		
Bituminous coal	\$485,761,000	\$458,288,000
Anthracite coal	5,827,000	4,790,000
Fuel oil—Residual	203,927,000)	212,224,000
Fuel oil—Diesel	117,983,000)	
Gasoline	8,969,000	8,234,000
All other (coke, wood, fuel for illumination)	10,573,000	8,094,000
Total Fuel	\$833,040,000	\$691,630,000
Forest Products:		
Cross ties (treated & untreated)	\$87,916,000	\$92,098,000
Switch and bridge ties (treated & untreated)	12,700,000	15,039,000
Lumber, including timber (bridge & building, equipment, rough & finished lumber)	58,562,000	55,778,000
Other forest products	7,310,000	8,677,000
Total Forest Products ...	\$166,488,000	\$171,592,000

Iron and Steel Products:

Steel rail (new & second hand except scrap)	\$100,073,000	\$87,608,000
Wheels, axles & tires	56,477,000	49,141,000
Frogs, switches & crossings & parts of same	34,176,000	29,195,000
Track fastenings, track bolts, spikes, etc.	77,162,000	67,271,000
Iron bridges, turntables & structural steel, all kinds	9,797,000	8,721,000
Bar iron & steel, spring steel, tool steel, unfabricated rolled shapes, wire netting & chain except light coil, boiler, firebox, tank, & sheet iron & steel, all kinds	54,173,000	43,256,000
Forgings & pressed steel parts for locomotives	6,331,000	6,363,000
Car forgings, iron & steel and fabricated or shaped steel, for passenger & freight cars ...	32,491,000	24,866,000
Flues & tubes for locos. & stationary boilers	7,826,000	8,569,000
Interlocking & signal material ..	47,396,000	34,176,000

**ANNUAL PURCHASES OF MATERIALS AND SUPPLIES
(EXCLUDING EQUIPMENT) 1923-1948 — Class I Railroads**
(Thousands of dollars)

Year	Fuel	Forest products	Iron and steel products	Miscellaneous	Total	Total less Fuel
1923	\$617,800	\$232,511	\$464,955	\$423,437	\$1,738,703	\$1,120,903
1924	471,656	180,872	365,610	324,917	1,343,055	871,399
1925	459,465	170,305	419,255	343,018	1,392,043	932,578
1926	473,354	186,291	507,302	392,085	1,559,032	1,085,678
1927	438,821	175,729	432,604	348,774	1,395,928	957,107
1928	384,608	160,794	397,544	328,395	1,271,341	886,733
1929	364,392	157,551	437,840	369,752	1,329,535	965,143
1930*	306,500	134,600	329,700	267,700	1,038,500	732,000
1931*	244,500	76,250	202,100	172,150	695,000	450,500
1932*	178,250	52,200	100,550	114,000	445,000	266,750
1933	180,526	42,442	110,720	132,162	465,850	285,324
1934	217,294	64,271	159,758	158,901	600,224	382,930
1935	232,723	57,367	156,914	146,021	593,025	360,302
1936	272,270	76,683	273,753	180,715	803,421	531,151
1937	294,293	104,707	359,409	207,974	966,383	672,090
1938	243,783	56,968	152,176	130,355	583,282	339,499
1939	257,273	69,971	273,968	168,102	769,314	512,041
1940	273,556	82,185	315,048	183,674	854,463	580,907
1941	349,765	103,771	456,147	251,591	1,161,274	811,509
1942	426,335	115,227	433,089	285,160	1,259,811	833,476
1943	527,296	150,255	410,803	305,927	1,394,281	866,985
1944	585,832	158,957	526,608	339,132	1,610,529	1,024,697
1945	555,155	136,962	520,876	359,411	1,572,404	1,017,249
1946	553,153	148,984	520,546	347,872	1,570,555	1,017,402
1947	691,630	171,592	628,155	417,832	1,909,209	1,217,579
1948	833,040	166,488	746,612	437,191	2,183,331	1,350,291

Source: Reports of the carriers to the Bureau of Railway Economics.
*Railway Age estimates.

Telegraph, telephone & radio material	15,068,000	9,240,000
Bolts, nuts, washers, rivets, lag screws, pins & studs	16,698,000	14,854,000
Springs, helical & elliptical, all kinds for locomotives & cars ..	5,634,000	4,734,000
Locomotive & car castings, beams, couplers, frames & car roofs ..	95,063,000	76,772,000
Track & roadway tools all kinds, miscellaneous track material & wire fencing. Motor, hand, push-& velocipede cars & parts for same	16,683,000	12,864,000
Machinery & repair parts, including all power driven shop machinery	12,513,000	10,776,000
Machinery, boilers, repair parts & all other iron & steel products	26,749,000	24,340,000
Pipe, iron & steel & fittings, all kinds	12,495,000	11,334,000
Hardware, all kinds, including nails	8,458,000	8,833,000
Hand & small machine tools, such as drills, taps, reamers, dies, chasers, including air tools & parts	17,490,000	14,468,000
Air brake material	30,183,000	28,724,000
Standard & spec'l mechanical appliances of locos.	20,290,000	20,101,000
Automotive equipment & supplies	43,386,000	31,949,000
Total Iron and Steel Products	\$746,612,000	\$628,155,000

Miscellaneous:		
Cement	\$4,744,000	\$3,997,000
Lubricating oils & grease, illuminating oils, boiler compound, waste	42,754,000	35,712,000
Non-ferrous metal & non-ferrous metal products	48,880,000	47,812,000
Ballast	22,870,000	20,570,000
All electrical materials	47,852,000	41,341,000
Stationery & printing (includes advertising)	33,792,000	31,662,000
Commissary supplies for dining cars, camps & restaurants	53,940,000	56,490,000
Rubber & leather goods	13,286,000	11,894,000

Glass, drugs, chemicals, including chemicals for timber treatment, painters' supplies	53,175,000	54,889,000
Arch brick for locomotives	5,187,000	4,303,000
Passenger car trimmings	18,899,000	15,181,000
Locomotive, train & station supplies	32,819,000	27,066,000
All other miscellaneous purchases	58,993,000	66,915,000
Total Miscellaneous Purchases	\$437,191,000	\$417,832,000
Grand Total	\$2,183,331,000	\$1,909,209,000

Source: Reports of the carriers to the Bureau of Railway Economics.

New Book . . .

RAILWAY ENGINEERING AND MAINTENANCE CYCLOPEDIA, 1948, edited by Neal D. Howard and staff. Seventh edition. 1,220 pages, illustrations. 8 in. by 11½ in. Bound in fabrikoid. Published by Simmons-Boardman Publishing Corporation, 105 W. Adams street, Chicago 3. \$8.

This is the seventh edition of an authoritative manual of railway engineering, maintenance and signaling, including descriptions of methods, materials, equipment and devices employed in the construction and maintenance of tracks, bridges, buildings, water service, signals and other elements of the fixed properties of the railways.

The new edition is divided into six sections, five of which pertain to specific phases of railway maintenance, while the sixth deals with tools, equipment and other products common to the other five. The Track section includes 24 chapters covering every phase of track construction and maintenance, with detailed discussions of the latest work equipment and approved practices for carrying out the work. The Bridge section has 16 chapters devoted to bridge construction and maintenance, including recent developments in concrete mixture, wood and steel bridges, preframing, turntable conversions, and protective coatings. The Building section, with 23 chapters, embraces the wide field of construction and maintenance of shops, servicing facilities for steam and Diesel locomotives, passenger and freight stations, and power plants, and the lighting, heating and ventilating of these and related facilities. The Water Service section, in seven chapters, deals with the importance of securing good water for drinking, steaming and cooling purposes, and includes particulars on the sources of supply, pumping equipment, meters, pipe lines, and storage and servicing facilities. The Signal section contains 18 chapters, which include the latest information on all-relay interlocking, centralized traffic control, spring switches, coded track circuits, and a general discussion of modern yard and road train communication systems, in addition to the basic fundamentals of signaling. For ready reference, four indexes are included—a general subject index, a directory of products, a trade-name index and an alphabetical index of manufacturers.

Between the railroads themselves competition, however severe, has always been on the basis of full cost and service. Costs have been met, if at all, out of revenues derived from the services performed for the public. With the single exception of pipelines, that is not true of the other agencies of transportation. In the case of highways, waterways, and airways, competition is on the basis of earnings versus the "public treasury," cost versus "benefits."

—From an address to the Eastern Sectional Group, Treasury Division, Association of American Railroads, by J. Cole Greenway, regional director, Competitive Transportation Research Division, A.A.R.

NEW AND IMPROVED PRODUCTS OF THE MANUFACTURERS



Ballast cleaning with the improved McWilliams crib cleaner

McWILLIAMS CRIB CLEANER IMPROVED

An improved model of the, McWilliams crib-cleaning machine, an on-track, self-propelled car which can be used either for crib excavating and ballast cleaning or, if desired, for crib excavating only, has been announced by the Railway Maintenance Corporation, Pittsburgh, Pa.

When used in ballast-cleaning operations, the rams of the machine force the ballast from the ends of the ties to a position between the rails, where it is picked up by an endless, digging-bucket-type conveyor. The conveyor delivers the ballast to vibrating screens for separa-

tion of dirt and ballast, after which the cleaned ballast is returned to the track both inside and outside the rails, and the separated dirt is delivered by a conveyor to the side of the roadbed, 7 ft. from the center line of the track. The latter conveyor, operating across the machine at right angles to the track, is reversible, permitting delivery of the dirt to either side of the track. When it is desired to deliver the dirt across an adjacent track, or a greater distance from the track being worked, a 16-ft. swing conveyor is provided, which, when not in use, folds alongside the machine in the clear.

To convert the machine from a ballast cleaner to a crib excavator, it is necessary only to remove the screens, a change that can be made in a few minutes. When this is done all the material ex-

cavated from the crib is deposited at the side of the roadbed.

The machine can be operated without fouling an adjacent track. The power plant is a 75-hp. Diesel or gasoline engine, direct connected to a hydraulic pump. All operations of the machine, including propulsion, are hydraulically operated by the pump except the mechanical drive of the digging excavator conveyor.

The unit can travel at speeds ranging from 5 to 18 m.p.h. It is equipped with air, hydraulic and hand brakes. All operations are controlled from one location and only one man is required. According to the manufacturer the operating cycle of the machine is designed to clean a crib in 20 sec.

ELECTRIC FANFOLD TYPEWRITER

A new electric fanfold typewriter with standard keyboard has been announced by Underwood Corporation, 1 Park Ave., New York 16. This machine is equipped with an automatic electric carriage return and two position intermediate carriage return, full length tabulator bar for either left or right hand operation, and palm tabulator for rapid selection of columnar positions. Also, there is a transparent form cutting knife to permit unobstructed insertion of loose forms, a redesigned form measuring guide to facilitate removal of forms and a floating sheet carbon paper bracket plate for sheet carbon paper. Roll carbon paper bracket plates also are available.

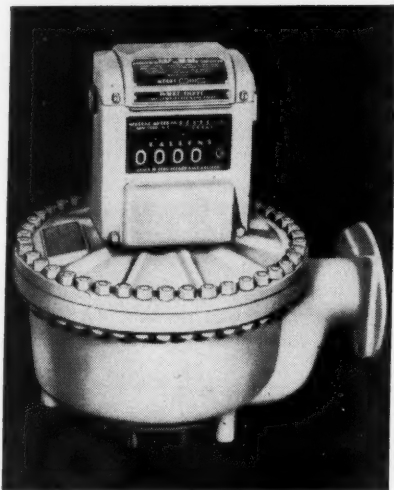


REGISTERS FOR FUEL-OIL METERS

A new line of registers, designated as the "400" series, for Neptune Red Seal meters, has been announced by the Neptune Meter Company, New York. The new registers, designed to speed and simplify the job of refueling Diesel locomotives and, at the same time, to provide accurate accounting records, are compact, weatherproof, and, according to the manufacturer, built to give accurate measurements for years.

Four types of registers are available, adaptable to any Red Seal meters (1 1/4 in. and larger). The simplest is the direct-reading reset counter, with totalizer. The second type includes, in addi-

tion, the Auto-Stop feature, which stops the flow after the amount preset on the register has been delivered. The third type (said to be most popular for Diesel refueling) is the Print-O-Meter, which prints a receipt ticket showing the number of gallons delivered. Provided in this type are number wheels for consecutive numbering of tickets, and letter wheels for station designation. The fourth type combines the Auto-Stop and Print-O-Meter features. With it the operator inserts a ticket, resets the meter with



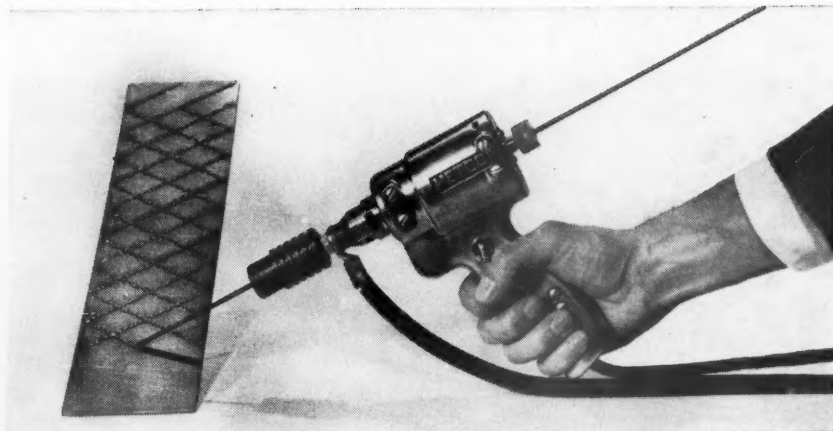
A 3-in. Red Seal meter with Print-O-Meter register, Model 433, for refueling Diesels at rates up to 300 gal. per min.

one forward turn of a knob, printing a row of zeros on the ticket, and locking the ticket in the register. The Auto-Stop setting is then made by pushing a row of buttons, each button setting one digit independently of the others, thereby permitting quicker correction of errors in the setting. After this the Auto-Stop valve is flipped open and the delivery is run. When the Auto-Stop has completed the delivery, the knob is turned back, printing the amount delivered on the ticket and, at the same time, releasing the ticket.

TOOL FOR APPLYING NON-SLIP METAL BEADS

The Metallizing Engineering Company, Long Island City, N. Y., has developed a welding tool by means of which metallic beads may be deposited on smooth metal surfaces to reduce the liability of accidents due to slipping and falling.

Known as Ruf-Tred, the tool is a vibrating electrode holder which may be used with any alternating or direct-current welding machine. As the electrode held in the tool is drawn over the surface at a rate of approximately 5 ft. per



Applying non-slip beads to a metal surface with the Ruf-Tred

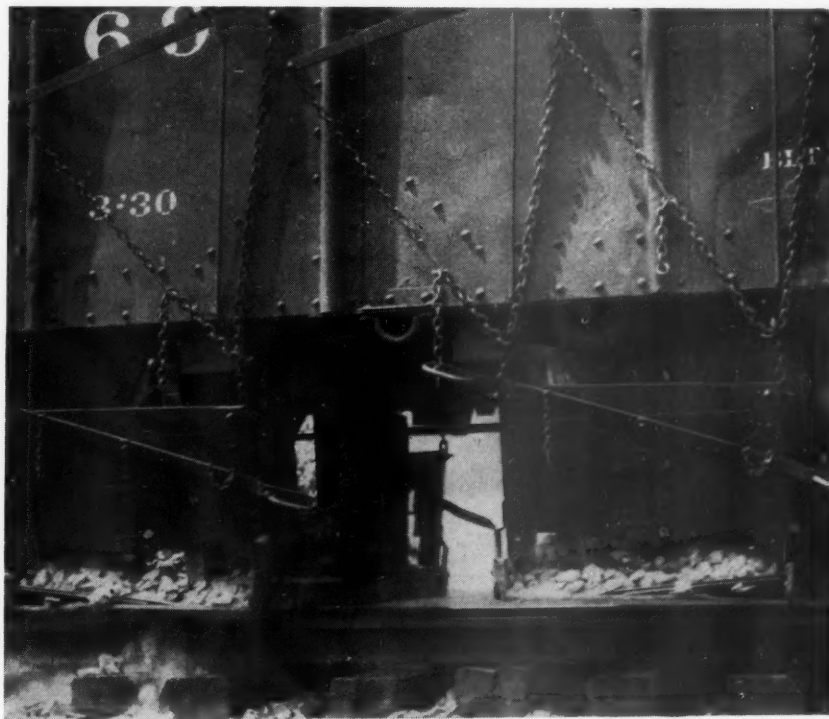
min. it deposits a rough, foamy bead about $\frac{1}{8}$ in. wide by $\frac{1}{16}$ in. deep. The beads can be applied, it is said, to dry, wet or oily metal without special surface preparation. According to the manufacturer the cost of bead application with the tool averages about 10 cents per square foot, including labor, materials and electric current.

BALLAST SPREADER

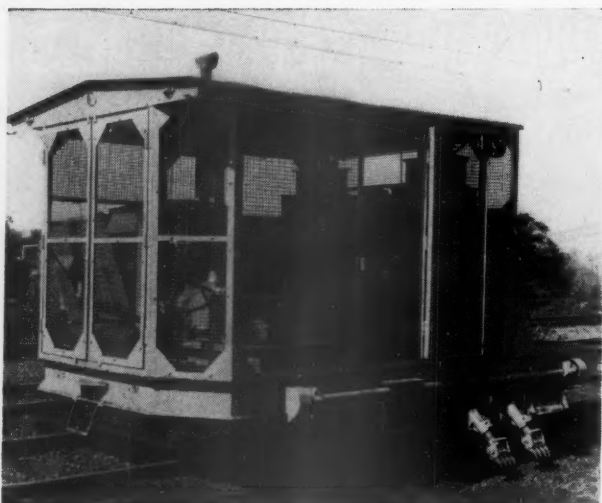
An improved device for spreading ballast from any hopper car of the self-cleaning type has been announced by the Scientific Production Corporation, New York. The device consists of an auxiliary hopper, made of aluminum alloy, which is suspended, by rods hooked over the top of each side of the car, in

a position directly beneath the hopper of the car. It is equipped with a selector mechanism by means of which the operator, stationed at the side of the device, can control the flow of ballast from the hopper car to the track. Six adjustable selections are possible—two inside and two outside the rails, and two outside the ties.

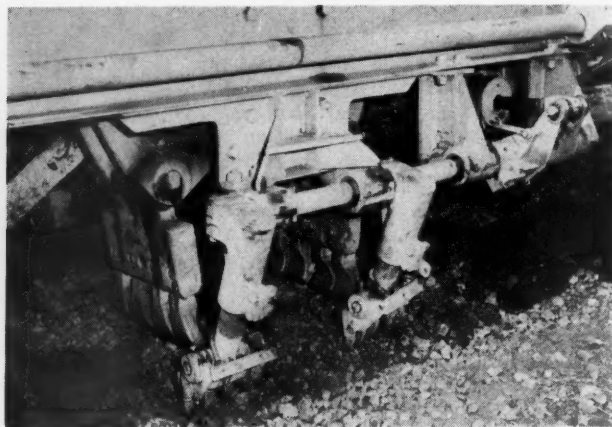
The device can be used for controlled ballast spreading over all or any part of the standard roadbed cross section. According to the manufacturer it has been used extensively during the past two years for spreading ballast for power tamping machines and for backfilling behind these machines. The device is said to be ideal for spreading ballast in track-pan areas, switches, bridges, grade crossings and in the vicinity of signal devices; and for spot ballasting. It is reported that the device can be installed on a hopper car in five minutes.



A pair of the automatic ballast spreaders attached to a hopper car



A Power Ballaster with the new ballast-feeding attachments. Close-up view (below) of the ballast feeder forking ballast into track cribs



POWER BALLASTER WITH BALLAST FEEDERS

An automatic ballast-feeding attachment for the Power Ballaster, which is said to eliminate all need of hand feeding, has been developed by the Pullman-Standard Car Manufacturing Company, Power Ballaster Division, Chicago. This attachment consists of two pairs of ballast forks, one pair on each side of the machine adjacent to the main tamping shoes. The motion of the forks is synchronized with the action of the main tamping shoes in such a way that, as the latter approach the tie base, the forks kick inwardly, raking ballast from the track shoulder into the crib.

The control mechanism of the forks is so designed that they operate only when additional ballast is needed, thus

providing, it is said, a more uniform feeding than is possible by hand. Because laborers are not needed in intertrack spaces, the Power Ballaster with the ballast-feeder attachment can operate continuously in multiple-track territory regardless of passing trains on adjacent tracks. The attachment is included on all new models and can be easily added to Power Ballasters now in service.

HOUGH PAYLOADER

A new tractor-shovel, the Model HM Payloader, which features a four-wheel drive and a power steering mechanism, has been announced by the Frank G. Hough Company, Libertyville, Ill. Mounted on pneumatic tires and driven by a

76-hp. engine, the unit can travel at a top speed of 16 m.p.h. Because it has a short wheel base, a reversing transmission with four speeds in either direction and power steering on the rear wheels, the machine is said to be highly maneuverable.

Raising and lowering of the bucket, and bucket dumping and closing, are controlled by hydraulic rams with finger-tip controls. The bucket boom is so designed that an automatic digging action is given to the bucket independent of the forward motion of the tractor. Also, an automatic tip-back of the bucket is provided as the boom is raised so that heaped loads can be retained without spilling. The Model HM Payloader has a bucket capacity of $1\frac{1}{2}$ cu. yd. and a static loading capacity of 6,000 lb. Various attachments for the unit, including a bulldozer blade, snowplow blade and crane hook, are available as desired.



IMPROVED IGNITER FOR GAS SWITCH HEATERS

An improved device for electrically igniting and keeping lit its Rail-Tel propane-gas switch heaters has been announced by the Rails Company, New Haven, Conn. The igniter is similar in design to its predecessor, a remote-controlled unit, in that it consists essentially of a set of spark coils that transmit high-frequency current to spark plugs attached to the heater. The new igniter, however, is operated by four 6-volt dry-cell batteries, and is therefore entirely independent of track circuits or adjacent power lines. Furthermore, the unit is activated by the pressure in the gas line rather than by a switch. When the gas is turned into the line, the igniter sparks intermittently at 30-sec. intervals, and continues in this manner as long as gas is supplied to the switch heater. The entire unit is located adjacent to the switch.

The gas may be turned into the line automatically by a solenoid valve opened by an electronic circuit controlled by the tower operator or dispatcher, or by manually opening a valve. If desired, a small thermal unit can be furnished to indicate to the tower operator or dispatcher whether the igniter is operating properly. This unit is set for a predetermined temperature and flashes a signal through a relay to the operating room when the set temperature is obtained, thus indicating that heat is being delivered to the switch.

HEAVY-DUTY MOTOR GRADER

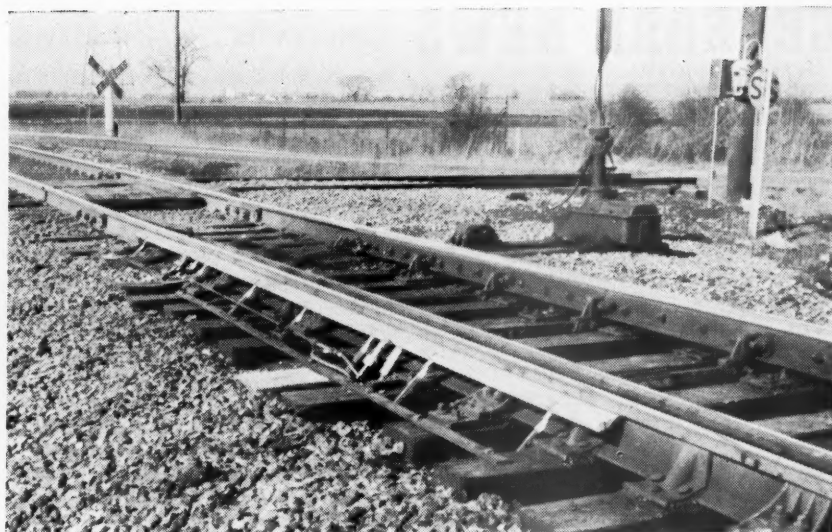
A rugged motor grader, the AD-4, designed for heavy-duty service, has been announced by the Allis-Chalmers Manufacturing Company, Tractor Division, Milwaukee, Wis. The important features of the grader include a 104-hp., General Motors two-cycle Diesel engine; a tubular frame design which is said to absorb more easily the twisting stresses and shocks constantly imposed on graders, and which permits the controls to be enclosed; hydraulically-controlled front-mounted lift cases for accurate blade control; a 30-in. throat clearance which enables the AD-4 to handle bigger windrows without interference; an involute design of the moldboard which causes the material to be rolled by the moldboard and not pushed, thereby, it is said, expediting the handling of bigger windrows; and designs of the operator's platform that are said to reduce fatigue and improve operator's performance.

The AD-4 motor grader has six speeds forward, ranging from 2.4 m.p.h. to 16.6 m.p.h., and three reverse speeds ranging from 2.8 m.p.h. to 6.2 m.p.h.

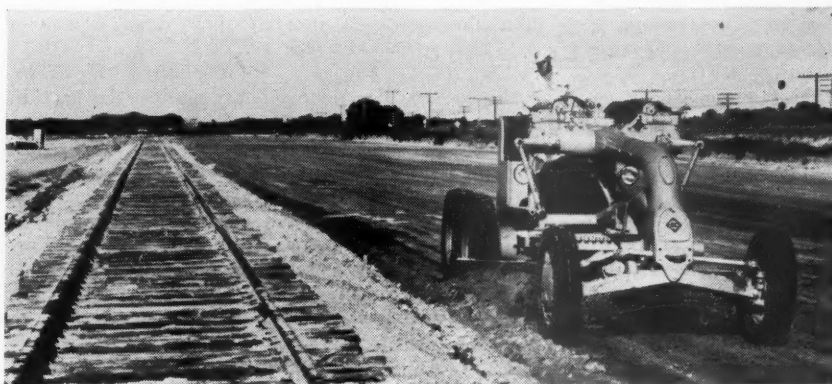
CUSTOM-BUILT TRUCK BODIES

The Atlas Body Company, Philadelphia, Pa., is offering custom-built truck bodies designed expressly for railroad use, such as hauling track, bridge, paint and signal gangs to and from the point of work. The bodies are built to meet the desires of the purchaser and offer a number of special features including tool compartments on each side of the body, outside ladder racks, and tool compartments also on the inside of the body.

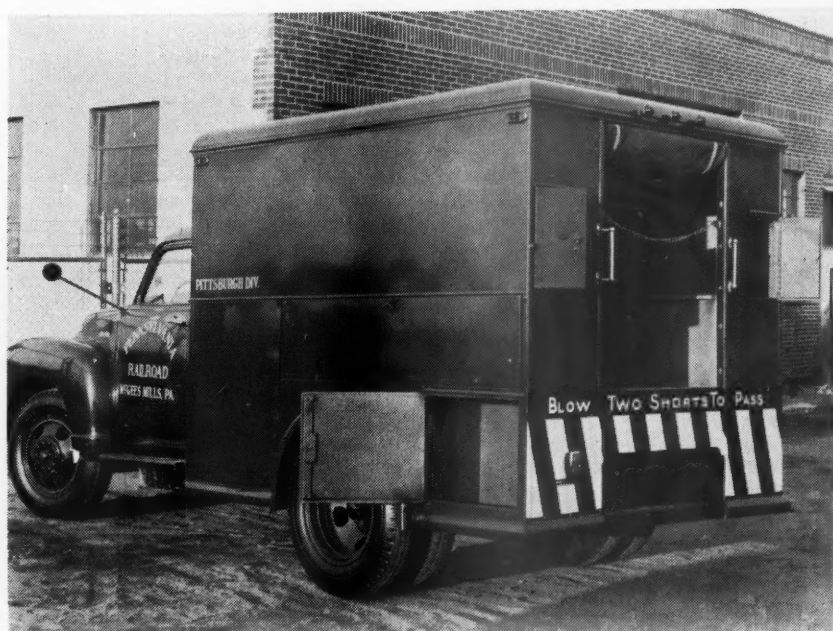
Suitable seating is provided for personnel, and the riding compartment is warmed by a special body heater. These bodies are of steel construction throughout, although ship-lapped oak flooring is available if desired. All parts are said to be rust-proofed. The size of the compartments can be varied to suit the purchaser.



Installation of gas switch heaters equipped with the improved igniter



An Allis-Chalmers AD-4 motor grader on a railroad job



One of the Atlas custom-built truck bodies

GENERAL NEWS

U. S. C. of C. Committee Urges Excise Tax Repeal

Drafts 13 recommendations for consideration at May 4 meeting

A call for early termination of war-time excise taxes on common carrier transportation was one of 13 recommendations on "national transportation policy" issued at Washington, D. C., this week by the Transportation and Communication Committee of the Chamber of Commerce of the United States. The committee declared the tax, which it described as "discriminatory," brings financial injury to all common carriers, creates inequities among them, discriminates as to users, and raises prices to consumers.

Other recommendations, listed in detail below, called for liquidation of government-operated transportation agencies, such as the Federal Barge Lines; eventual elimination of subsidies; ultimate creation of a single agency to regulate all forms of transportation; and support of the Reed-Bulwinkle Act. These and other proposals of the committee will be submitted to the annual meeting of the chamber at Washington, D. C., May 2-5, for consideration by the full membership. The committee report does not commit the chamber for or against the propositions in it until they have been voted on by the chamber's member organizations. The program for the transportation session of the annual meeting, on May 4, was outlined in the *Railway Age* of April 2, page 51.

The committee's detailed recommendations were as follows:

Maintaining a Strong Transportation System—" . . . that all forms of transportation be afforded a healthy business atmosphere in which to operate, competitive opportunities which will conserve for the public good the advantages of each, and that they be free from government competition [e.g., the Federal Barge Lines] and regulated only to the degree clearly required by the public interest."

Just Compensation Principle—"The substance of the 'just compensation' principal set forth in . . . the Interstate Commerce Act . . . should be specifically made a part of the national transportation policy by congressional mandate and recognized by other governmental agencies dealing therewith and no other act should be administered or interpreted to impair this national transportation policy."

Rate-Making Principles—"Regulatory agencies should continue to be given

full latitude to discharge their rate-making responsibilities in the light of all facts before them, governed only by broad principles set forth in the statutes, and Congress should refrain from legislating rates, rate bases or restrictive rate-making principles.

"The welfare of transportation companies and of the . . . public calls for the continuation of the existing [Reed-Bulwinkle] law which permits carriers to enter into carrier agreements as to rates, subject to safeguards imposed by the regulatory body.

"To the extent that below-cost rates on competitive traffic or services unreasonably injure competing carriers or stifle competition, regulatory agencies should prohibit their establishment or maintenance . . ."

Efficiency of Regulatory Agencies—"Federal regulatory agencies having jurisdiction over transportation should use every effort to separate their judicial and administrative functions and delegate details to commissioners, members or staff; and through provision for appropriate salaries and retirement compensation, every effort should be made to attract commissioners, members and staff of the highest qualifications."

Single Regulating Agency

Single Regulatory Body—"Regulation of all interstate and international transportation for hire ultimately should be vested in a single regulatory body"—with, however, temporary separate regulation for a "reasonably limited development period" for air and international ocean transportation.

Common Ownership—"Congress should . . . permit operators of one form of transportation service to operate other forms within reasonable territorial limits upon making an adequate showing to the appropriate regulatory authorities that it would be in the public interest and would not unduly restrain competition; and operators of different forms of transportation, under proper safeguards . . . should be encouraged to coordinate their services through contractual arrangements."

Federal Aid—"Government aid to any form of domestic transportation should be limited to a reasonable developmental period and gradually be withdrawn as the industry becomes established."

Interference with Management—"Legislation, federal or state, interfering with the proper functions of management with respect to limitation of lengths of trains, so-called full crews, establishment of a six-hour basic work day in transportation or otherwise is not warranted by any

economic or safety consideration. . . . Any existing laws . . . containing such provisions should be repealed."

Taxes—"Excise taxes on the transportation of persons and property . . . should be repealed. . . . Duplicate and multiple taxation should be eliminated wherever practicable."

"State Barriers"—"State or local regulations not essential to the safeguarding of life or property should not be permitted to interfere with or burden interstate transportation."

The committee was headed by Evans A. Nash, president of Yellow Transit Company, Oklahoma City, Okla. Railroad members included C. McD. Davis, Fred G. Gurley, L. O. Head and R. E. Woodruff, presidents, respectively, of the Atlantic Coast Line, the Atchison, Topeka & Santa Fe, the Railway Express Agency and the Erie. Other members included executives of truck and bus companies, inland and ocean water carriers, air lines, telephone and telegraph companies and general industry.

N. & W. Holds 24th Better Service Meeting

600 delegates and guests attend sessions at Roanoke on April 8-9

Approximately 600 delegates and guests attended the Norfolk & Western's Better Service Conference at the Hotel Roanoke, Roanoke, Va., on April 8 and 9. The conference was the twenty-fourth annual meeting of delegates representing Better Service Clubs throughout the N. & W. system; the general chairman was L. C. Yates, general claim agent of the road.

The meeting was saddened by the sudden death of O. M. Dawson, general superintendent of the N. & W.'s Western general division, who succumbed to a heart attack at the hotel shortly after he arrived to attend the opening session. Mr. Dawson's death caused the cancellation of addresses that had been scheduled to be made by two other N. & W. executives—W. J. Jenks, chairman of the board, and C. H. Tabor, vice-president and general manager.

N. & W. executives who addressed the delegates were President R. H. Smith, Executive Vice-President George Duglinson, Jr., and Vice-President F. S. Baird. Other speakers were C. D. Johnston, president of the Roanoke Public

Warehouse, who is also president of the American Warehousemen's Association; and E. G. Otey, president of the First National Bank of Bluefield, W. Va.

President Smith's Address

With General Chairman Yates presiding, the opening session on April 8 got under way with President Smith's address. Mr. Smith talked mostly about the N. & W.'s situation, but his discussion of the competition faced by that road led him into general comment on the competition with which all railroads are confronted from subsidized carriers by air and highway. As to air transportation, Mr. Smith said he was not criticizing that form of transport which he regards as "our first line of defense." He did suggest, however, that the N. & W. employees, "as taxpayers," have a right to raise questions as to why users of air-carrier service should not pay the cost of what they use—"particularly when the service is being rendered in competition with your railroad, which out of its service charges must pay all of its operating costs and, in addition, a substantial tax bill."

Likewise, with respect to highway transportation, Mr. Smith referred to a recent address wherein T. H. MacDonald, federal commissioner of public roads, had spoken of the highway damage caused by heavy trucks. (See *Railway Age*, March 5, page 80.) The N. & W. president then added: "I leave that as something worth your thinking about as a tax payer. The tax payer will be presented with the bill for repairing the damage to which Mr. MacDonald refers."

Another matter emphasized by Mr. Smith was the importance of coal traffic to the N. & W., and the losses the road incurs as a result of coal strikes. Each day that coal production is suspended, he said, the cost to the N. & W. is \$500,000 in revenues. Without mentioning President John L. Lewis of the United Mine Workers by name, Mr. Smith went on to say that the N. & W., "and in fact the nation as a whole," continue to be "plagued" by the miners' work "stoppages." It seemed to the N. & W. president as he put it "to be not in the best interests of the 140 million people in this country that an industry of vital importance to the welfare of all of them should be under the absolute domination of one individual who, without consideration of the public welfare, can stop that industry or start it as his whim dictates."

In discussing the N. & W., affairs with his fellow workers Mr. Smith said it would be a "great thing" for the road if every employee would "make himself a traffic solicitor." He went on to tell of the improved facilities and equipment which the road is providing, pointing out that plans for the next three years call for expenditures totaling \$43,600,000. This will be in addition to \$54,559,000 spent since the close of World War II. The job of using these improved facilities for their intended purpose, Mr. Smith con-

APPLIED PUBLIC RELATIONS

On April 5 New York-bound commuters on the Delaware, Lackawanna & Western's Boonton line were late getting to work because their trains were detoured, with some delay, over a freight

line that a number of them never had seen before. When those commuters boarded their trains to go home that night, they found the following notice placed in the seats:

WE REGRET

The inconvenience caused our Boonton Branch passengers this morning when most of our trains were forced to detour over the Harrison Branch was due to a tug, owned by the Red Star Towing Company, with a scow of stone, attempting to go through our Hackensack drawbridge at Secaucus, contrary to advice from our bridge-tender, becoming stuck. Railroad emergency workmen arrived at the scene and freed the boats after an hour and a half by working from the shore.

A similar instance occurred on the morning of March 18 at the same bridge with a tug owned by the same company. In both instances, over 2,800 Boonton Branch passengers were late getting to work.

The Lackawanna, working with other interested parties, attempted in 1946 to get the War department to agree to keep the drawbridges closed during the morning and evening rush hours, which would have prevented commuter train delays, but the War Department denied our petition.

F. Diegtel, Superintendent

tinued, "depends finally upon the people who use them and who directly render the service." The purpose of the whole railroad plant, and the justification for these new capital expenditures and for every N. & W. man's job, he added, "is to give the public prompt, dependable, safe and economical service—to give good transportation pleasantly performed."

Coal Prices Up More Than Coal Rates

Among subjects which Mr. Smith suggested for the consideration of the conference's committees were freight loss and damage and the economical use of fuel coal. In the latter connection he noted how fuel-coal costs have increased much more than N. & W. rates on coal. "Your railroad in the year 1939," he said, "hailed the average ton of coal 357 miles to earn the cost of a purchased ton of fuel coal. At the January, 1949, freight rates and coal costs, we haul that average ton of coal 762 miles, or considerably more than twice the 1939 distance, to earn the cost of a purchased ton of fuel coal." Mr. Smith expressed his hope that these figures would impress the delegates with the importance of economy in the use of coal, and give them information "for answering some of the loose, uninformed talk going around to the effect that railroad freight rate and passenger service rate increases have been unjustifiably high and are causing the diversion of traffic to other means of transportation."

President Johnston of the Roanoke Public Warehouse delivered his address at the April 8 luncheon session, when H. C. Wyatt presided as toastmaster. Mr. Wyatt is the N. & W.'s assistant general superintendent of motive power. President Otey of the First National Bank of Bluefield spoke at the dinner session on the same day, when Vice-President Baird was the toastmaster. The speeches of Messrs. Johnson and Otey were pleas for adherence to the American system of

private enterprise and warnings of the need for checking what they viewed as a growing trend toward Socialism. Mr. Johnston said the "danger" was not the threat of any "dramatic" change, but the gradual spread of what he called "creeping Socialism." Mr. Otey said that Socialism has not been submitted to the people in its entirety; it has been administered in small and appealing doses in the form of apparent benefits to one segment of society at a time.

Constant Effort for Improvement

The April 9 session opened with the address of Executive Vice-President Dunglinson, who supplemented President Smith's talk about improvements which the N. & W. is making in its facilities and equipment. Mr. Dunglinson outlined other activities in which the N. & W. engages in its undertaking to maintain its position in the transportation field. He told of the \$650,000 spent last year on advertising and of plans to spend \$720,000 for that purpose in 1949. He explained how this advertising not only calls attention to N. & W. services, but also promotes the sale of coal mined on N. & W. lines and undertakes to induce new industries to locate in the territory served by the road.

Other N. & W. activities mentioned by Mr. Dunglinson included its participation in the work of the Locomotive Development Committee, which is studying the possibility of developing a gas-turbine-electric locomotive. All such activities, Mr. Dunglinson said, show how the N. & W. management "is working to promote the development of business for the benefit of its employees, its stockholders, and the communities served."

Vice-President Baird, who is in charge of the Traffic Department, explained the organization and work of that department. In order to obtain business, he said, a railroad must offer rates that will move the traffic; maintain favorable

personal contacts with customers; advertise; and provide efficient and courteous service. Mr. Baird went on to urge that more attention be paid to l.c.l. service which he called "neither efficient nor economical." In that connection he was gratified that the Office of Defense Transportation had found it possible to suspend General Order ODT 1, the minimum loading order for l.c.l. Conceding that this order was necessary in the interest of equipment conservation, Mr. Baird nevertheless called it a "prolific cause" of damage to freight.

Meanwhile, Mr. Baird endorsed O.D.T. Director J. Monroe Johnson's recent suggestion that the federal government buy 550,000 new freight cars as "part of the armament" now being acquired under the national defense program (see *Railway Age* of April 2 page 49). In making the suggestion Colonel Johnson reflected a "long-range vision," Mr. Baird said, adding that the suggestion seemed to make "good sense" in view of the dependence of the nation on railroads during World War II when highway transportation "utterly failed to take up its share of the burden."

Other proceedings of the April 9 session included the presentation of reports by the conference's committees. These reports, all of which were adopted by the conference, dealt with the following subjects: Safety—Keep Our Railroad First; Improvement in Service Our Goal; Every Employee a Solicitor; New Horizons for Better Services, and Citizenship.

I.C. Completes Memphis Yard Work

The Illinois Central, on April 1, formally opened its Johnston yard—successor to the Nonconah yard—at Memphis, Tenn., key freight classification point in the north-south operations of the railroad. Two years' work and an expenditure of nearly \$1,000,000 were required to reconstruct the existing property, which has been renamed in honor of Wayne A. Johnston, president of the I. C. The revamped facility is a flat-switching yard, the classifying capacity of which has been increased by 5,000 cars daily, to a total of 15,000 cars. The yard has a standing capacity of 6,000 cars.

Atlantic States Shippers Board Meets at Baltimore

Nearly 500 railroad and shipper representatives attended all or part of the 78th regular meeting of the Atlantic States Shippers Advisory Board at Baltimore, Md., on April 6 and 7.

The highlight of the meeting was a session of the Loss and Damage committee, at which the Baltimore & Ohio presented a sound film, "Handle with Care"; Charles E. Miller, Pittsburgh, Pa., packaging and loading engineer, Carnegie-Illinois Steel Corporation, gave an illustrated presentation on "Packaging of Flat Rolled Steel"; and a forum discussion on "Preparation, Loading and

RAILWAY AGE WINS NATIONAL SAFETY COUNCIL AWARD

Railway Age has been chosen as a winner of a National Safety Council public interest award for "exceptional leadership and support of the national safety movement" during 1948. The Union Pacific won a similar award for its sponsorship of "Look, Listen and Live," a sound-color motion picture released in the road's campaign to reduce the toll of highway grade crossing accidents.

Railway Age—one of eight business papers receiving the special awards—was honored for its publication last year of 54 editorials, features or news items, including 25 illustrations and totaling approximately 629 column inches—dealing directly with safety and accident prevention.

The judges were Erwin D. Canham, editor of the *Christian Science Monitor* and president of the American Society of Newspaper Editors; Norman Damon, vice-president of the Automotive Safety Foundation; Wesley I. Nunn, advertising manager of the Standard Oil Company of Indiana; Dr. K. E. Olson, dean of the Medill School of Journalism, Northwestern University, and Arthur C. Stringer, director of special events, National Association of Broadcasters.

Handling of Shipments" was conducted by W. W. Weller, Newark, N. J., eastern traffic manager, Weyerhaeuser Sales Company.

Other features included a report on national transportation conditions by C. R. Megee, Washington, D. C., vice-chairman, Car Service Division, Association of American Railroads; a summary of car supply and transportation conditions in board territory and of national port traffic conditions by G. C. Randall, New York, district manager, Car Service Division, A. A. R.; and a luncheon address on "Business and Public Relations" by Charles A. Newland, Baltimore, Md., manager, Maryland-Delaware-District of Columbia sales division, Esso Standard Oil Company.

H. H. Pratt, New York, general traffic manager, Crucible Steel Company of America, and board president, presided at the general sessions.

The board's next regular meeting will be at the Mark Twain Hotel, Elmira, N. Y., on October 5 and 6.

Atlantic & Danville to Dieselize Completely

The Atlantic & Danville, which begins independent operations on July 2, will be completely Dieselized after receipt during the third quarter of this year of six 1,500-hp. Diesel-electric road-switching locomotives ordered from the American Locomotive Company. Delivery of the locomotives, to cost approximately \$900,000, will enable the road to inaugurate a nightly through freight service. Arrangements whereby the A.&D., operated by the Southern since 1899 under

a lease which expires next July 1, will become an independent road, were recently approved by the Interstate Commerce Commission, as reported in *Railway Age* of April 9, page 72.

End of Freight Absorption Would Mean Atrophy of Transport—Faricy

To prohibit business men individually from absorbing all or part of the freight charges on their shipments "would undercut the very foundations of the system of production and exchange of goods and services which has made America what it is," William T. Faricy, president of the Association of American Railroads, warned the Kansas City, Mo., Chamber of Commerce on April 13.

"If it should turn out to be the law that no systematic absorption of freight charges is to be permitted—and that delivered pricing even in individual instances is subject to risk—the effects . . . would be profoundly disturbing," Mr. Faricy declared. "Under such a system," he said, "there would be an unpredictable relocation of industry on the part of those businesses which say unequivocally that without some sort of freight absorption they cannot operate present plants built not to serve merely local markets but great sections of the country, or even the whole nation."

Pointing out that "the structure of the economy of this country traditionally has been founded upon the concept of unrestricted access to markets and to sources of raw materials," Mr. Faricy continued: "It has been left for each producer to judge how far he should reach either to secure his materials or to distribute his product. It has been up to him to make the crucial decision as to where, in each individual case, he might reach the point of diminishing or vanishing returns. Under this concept, the country has grown and prospered as no other country in history. Moreover, the experience of two wars has shown that the industrial capacity achieved under this concept is indispensable to national security."

Mr. Faricy maintained that to limit artificially the range within which a business may operate "would bring about the atrophy, more or less complete, of the very transportation systems which are one of the secrets of our national strength."

Speaking of railroad freight rates, Mr. Faricy stated that they are "neither high nor burdensome. . . . When measured against the average value of the goods transported, rail freight rates are not only lower now than before the war, but are less than since the Interstate Commerce Commission has been keeping figures on the subject.

"Because transportation in America is so cheap, it is used abundantly. And the converse is equally true. Transportation in this country is produced more cheaply because it is so abundantly used. In our transportation operations, we have applied the law of increasing returns—do-

ing more and more for a smaller and smaller proportion of the total national production or income."

Mr. Faricy expressed the fear that, if there should be an artificial limitation of the usefulness of transportation, this trend would be sharply reversed.

Canadian Coach Fares Increased

A 15 per cent increase in coach-class fares on Canadian railroads became effective April 9, following elimination on March 23 of the 15 per cent wartime transportation tax. (See *Railway Age* of April 2, page 52.) The increase, which did not require government approval, will not affect first-class fares, on which, however, a similar 15 per cent increase is being sought by the Canadian Passenger Association, representing all Canadian railways.

A spokesman for the association explained that the standard railroad fare in most parts of Canada, as approved by the Board of Transport Commissioners, is 3.45 cents per mile. For some years the railways have maintained a differential between the standard and coach-class fare, which up to now has been three cents. The effect of the present increase is to bring the coach fare up to the standard fare; for the time being the same fare will prevail for coach and first-class travel.

RRs are "Weathervanes of Private Enterprise," Says Professor

A Northwestern University professor who characterized the railroads as "weathervanes of private enterprise," said in an address at Chicago last week that government's "interference" with the railroads has grown to its present extent because the "carriers, until very recently, have failed to agree upon or to accept any basic principles which they all would practice and defend." Richard C. Overton, professor of business history and chairman of the department in the university's School of Commerce, observed further that the railroads, not having such principles clearly in mind, have found it impossible to "merchandise" their position to the public and to their employees, whose support they need.

Said the speaker: "The railways are far ahead of most other businesses in experiencing the challenges to free enterprise in a changing society. Because of their very physical nature and their constitution as a 'public utility,' they have been subject to government controls which other industries have escaped." Government impingement on the railroads' free enterprise has occurred through many channels, declared Professor Overton. He pointed out that, in addition to the comprehensive regulations administered by the Interstate Commerce Commission, the industry has been beset by: (1) Taxes levied on the "unrealistic theory" that railroads still have monopoly in inland transportation; (2)

demands for services which the public has abandoned; (3) labor contracts based on conditions existing 50 years ago; (4) excess profits taxes overlooking the needs of the carriers to accumulate reserves for hard times; and (5) anti-trust actions conflicting with co-operative practices approved by the I. C. C.

All business can learn from the experiences of the railroads, the speaker concluded. "Their plight may sooner or later be the general plight of business. They are the weathervanes of private enterprise; as such, they should be watched."

February Accident Statistics

The Interstate Commerce Commission has made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for February and this year's first two months. The compilation, which is subject to revision, follows:

Item	Month of February		2 months ended with February	
	1949	1948	1949	1948
Number of train accidents*	834	1,197	1,737	2,427
Number of accidents resulting in casualties	33	64	77	156
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	74	101	148	175
Injured	60	73	124	128
Passengers on trains:				
(a) In train accidents*				
Killed	—	—	—	14
Injured	6	52	105	327
(b) In train-service accidents				
Killed	—	—	3	4
Injured	157	224	337	408
Travelers not on trains:				
Killed	1	2	1	2
Injured	84	96	147	207
Employees on duty:				
Killed	37	57	73	119
Injured	1,830	2,783	4,154	5,893
All other nontrespassers:**				
Killed	140	124	289	298
Injured	539	631	1,213	1,386
Total—All classes of persons:				
Killed	252	284	514	612
Injured	2,676	3,859	6,080	8,349

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of more than \$250 to railway property in 1948. Beginning January 1, 1949, this minimum was raised to \$275. Only a minor part of the total accidents result in casualties to persons, as noted above.

** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	135	119	274	279
Injured	389	416	836	883

Ralph Budd is Appointed To Chicago Transit Post

Ralph Budd, who plans to retire on September 1 as president of the Chicago, Burlington & Quincy, has been appointed a member of the Chicago Transit Authority board by Mayor Martin H. Kenney. Mr. Budd, who is to serve without pay until the effective date of his railroad retirement, fills the board vacancy left by the late Phillip Harrington, who was also chairman. The C.T.A. board selects its own chairman, and it is be-

lieved by many that the Burlington president will be offered the post. The Chicago press and civic groups have heartily praised Mr. Budd's appointment, which is subject to confirmation by the city council and governor.

The C. T. A. is a city-owned corporation—tax exempt but required to sustain itself from fare collections—which owns and operates all of the rapid transit and street car and most of the local bus lines in Chicago.

"Railroad Hour" to Continue

Beginning May 2 and continuing each Monday night during the summer, the Railroad Hour will present musical excerpts from the works of, and dramatize events in the lives of, some of the composers whose operettas were given over the air by the railroads during the 1948-1949 fall and winter season.

Continuance of the Railroad Hour in the type of music that will distinguish the half-hour summer show is a direct result of popular demand by young people, educators, doctors, lawyers, clergymen and thousands of others who have written the Association of American Railroads.

"Pat on the Back" for C. & E. I.

The Indiana state legislature has passed a concurrent resolution extending its "appreciation, gratitude and congratulations" to the Chicago & Eastern Illinois upon its centennial year, and expressing hopes for the road's "continued prosperity and success." The state body observed that services rendered by the railroad "contribute strongly to the economy and importance of the state of Indiana as well as the financial and physical well-being of citizens residing in the state."

R.I. Makes Safety "Family" Affair

A series of safety rallies to which employees and their wives are invited, and which combine social activities with safety discussions, has been inaugurated by the Chicago, Rock Island & Pacific. The system-wide meetings are a part of a new accelerated safety drive which will attempt to make safety gatherings "attractive family socials."

N.Y.C. Seeks Authority To Raise Commuter Fares

The New York Central this week requested authority from the New York State Public Service Commission to increase commutation fares on the Harlem, Hudson and Putnam divisions. The road pointed out that commutation fares on these divisions have risen only 10 per cent since 1932 and that the service is currently operated at an approximate loss of \$2,080,000 a year. "While our commutation rates have increased only 10 per cent," F. H. Baird, general passenger traffic manager, said, "there has

LOSS AND DAMAGE CAN BE BROUGHT UNDER CONTROL IF EVERYBODY WILL DO HIS PART



Who Me?

Yes, Mr. Shipper.

It's your product. Your customer has the right to expect it will reach him in good order. Are you doing your full part to make sure that it does?



You Too, Mr. Carrier!

Let's say that the shipper has done his part. Now you—the carrier—take over. It's your turn and your responsibility to protect the goods against loss and damage by handling them with proper care—by giving good service.



And You, Mr. Receiver

Now the goods are yours. You know whether the shippers and the carriers have done their part. If they have fallen down, tell them so. Give them a chance to get at the cause of the trouble. That's your part—an important part too—from which everybody can benefit.

WHAT IS YOUR STAKE IN PERFECT SHIPPING? It does it make to you, if

If, as a result, the customer decides to buy elsewhere you also lose his business. This needn't

often go astray. Package markings should always agree exactly with the bill of lading.

A portion of one of the folders being used in connection with "Perfect Shipping Month"

been a jump of 116.7 per cent in the basic wage rates we must pay to provide this service, and of 195.5 per cent in the average prices we must pay for materials and supplies used in this service."

The road proposes to establish a new type of monthly ticket, good Mondays through Fridays, at an increase of 31.27 per cent over the present unrestricted monthly ticket. For commuters who need an unrestricted monthly ticket, the increase would be 45.86 per cent. Under the proposed new scale, 26-trip and 12-trip tickets would be increased 13.64 per cent. Monthly school tickets would be raised 13.64 per cent. The new scale for 26-trip tickets would be about 2.43 cents a mile and for 12-trip tickets about 2.7 cents a mile. The increases would affect commuters on the Central's West Shore Railroad between stations within New York state, but would not affect the bulk of West Shore commuters, traveling between New Jersey and New York, whose rates were increased on a sliding scale, averaging about 20 per cent, on October 1, 1947, under Interstate Commerce Commission authority.

N.E. Shippers Board to Study Potato Transportation Problems

An extensive study of the problem of expeditiously moving the potato crop in the state of Maine, designed to aid both the growers and the railroads, and to prevent car shortages, with resultant loss of sales by Maine growers, was voted on April 12 by the New England Shippers Advisory Board.

The vote to appoint a committee for that purpose was the feature of the evening meeting of the board, some 1,100 members of which from all parts of New England attended a two-day gathering at the Hotel Statler, Boston, Mass.

Chairman William H. Day, traffic manager of the Boston Chamber of Commerce, who presided at the meeting, told the members that "the situation as regards the Maine potato crop is a two-headed problem. I know that New

England's railroads lost traffic in potatoes this year as a result of car availability fluctuation, and I also know that some Maine potato growers lost business and had orders cancelled because they were unable to get cars to ship in when buyers wanted them. Further, as a result of this situation, there have been threats that Maine's potato growers will not be given some further orders if the prospective purchasers cannot be assured that they can get the potatoes when they want them."

E. Paul Miller, New England district manager of the Association of American Railroads, said that while it is true that there have been certain periods this year when sufficient cars were not immediately available for potato shipments, nevertheless, through March this year a total of 50,859 cars have been shipped out of Maine, as compared with 46,682 cars in the same period last year. This increase of 4,200 cars, Mr. Miller said, also reflects heavier loadings, with an average of 941 bu. per car this year, as against 786 bu. per car last year. "Based on last year's loadings," he added, "this year's shipments through March would have required 8,000 more cars than last year's total."

The board appointed F. H. Daggett, general manager of the Bangor & Aroostook, Frank W. Rourke, general manager of the Boston & Maine and the Maine Central, and J. Frank Doolan, vice-president of the New York, New Haven & Hartford, as a committee to study the situation, with instructions to bring back to the board at its fall meeting recommendations as to car supply for next year's crop shipment, which would assist in holding the business for Maine's potato growers.

A seriously tight box-car situation will probably develop during the summer months, W. E. Callahan, manager of the Open-Car Section of the A.A.R.'s Car Service Division, predicted. "Preliminary reports issued by the Department of Agriculture indicate record acreage planted and bumper grain productions in most classifications," Mr. Callahan

said. "... This presents a real problem so far as railroad transportation is concerned, in that grain in storage will be moving at the same time that new crops are being harvested."

Mr. Miller told the members that, at present, New England railroads are in position to meet all normal requirements for empty equipment and that adequate service is available.

J. Alex Crothers, director, Port of Boston Authority, was the speaker at the luncheon session which marked the close of the meeting on April 13.

The board accepted with regret the resignation of J. W. Smith, vice-president—operating, of the B. & M. and Maine Central, who for many years has headed the Railroad Contact Committee of the board. It voted to promote Mr. Doolan, who has been vice-chairman, to succeed Mr. Smith, and also elected Augustus Hart, general manager of the Boston & Albany, as vice-chairman of the committee.

The board voted to hold its fall meeting at the Mount Washington Hotel at Bretton Woods, N. H., September 28-30, and also to hold a special anniversary meeting in 1950, commemorating the twenty-fifth year of the organization's history. It was reported that the board now numbers 2,452 members in the six New England states.

The board also voted to hold a special regional advisory board meeting on June 2 at Woodstock, Vt., where, in co-operating with the Vermont Railroad Association and the Associated Industries of Vermont, transportation problems in that state will be discussed at an all-day session.

Wabash Board Calls Strike "Damaging" to Cause of Labor

"A strike to enforce claims without adjudication where the law provides for adjudication not only is hurtful to the general economy, but is also damaging to the cause of labor," said the report of the emergency board which investigated the dispute which resulted in the recent strike of Wabash and Ann Arbor operating employees. The board made its report to President Truman last week, noting that the striking employees returned to work on March 23 after having been out since March 15, and that the dispute was subsequently settled in conferences between the parties themselves.

The dispute involved some 150 grievance cases which would normally have gone to the National Railroad Adjustment Board, and the striking employees were represented by the Brotherhood of Locomotive Engineers, Brotherhood of Locomotive Firemen & Enginemen, Order of Railway Conductors, and Brotherhood of Railroad Trainmen. Members of the emergency board were Chairman Roger I. McDonough, justice of the Supreme Court of Utah; Curtis G. Shake, former justice of the Supreme Court of Indiana; and John W. Yeager, justice of the Supreme Court of Nebraska.

From the expression of its view that there should be no strike involving claims for which adjudication procedures are available, the board followed through to suggest that if the work of the Adjustment Board cannot be speeded up, under existing conditions, "steps should be taken to remedy the situation." Meanwhile, the report gave figures indicating how grievance claims had piled up on the Wabash until the strike came, but the board was "unable to say" why this had been allowed to happen.

"If," the report continued, "it was the failure of management to give early attention and proper consideration to these claims as they arose, or if it was its fault in some other respect or respects, what happened here ought to be a warning to these and other carriers of the probable consequences of like failures and faults. If it was the failure of the organizations to take advantage of the legal processes of progressing claims to the Adjustment Board because of seeming delay entailed in the process, or some other fault, we think their judgment was fallacious."

The strike was on when the board convened for the first time on March 22, and that day was devoted to conferences designed to end the walkout. The board's participation in such conferences was pursuant to what it regarded as a "mandate" from President Truman in the letters of appointment to the members. Presumably the President's instruction that the board "make every effort to adjust the dispute" was the "mandate." At the same time, the report noted, a question was raised as to the propriety of an emergency board functioning while employees involved in a dispute under investigation remained on strike. "The board did not then and does not now indicate a view with regard to the question thus raised," the report added.

In closing, the report congratulated the parties on the settlement and said that members of the board "have no doubt that from now henceforth for a long time, amity and good will will be the order on these carriers insofar as these parties are concerned." Finally, the board recommended "a like effort in the same spirit on other carriers where like or similar controversies exist or may arise, not, however, in the face of a strike or threat of strike, but in the interest of justice and fair dealing, and in avoidance of temporary unemployment of untold numbers, and of regional economic paralysis."

Suspends Proposed Rate Cut on Ex-Lake Grain

The Interstate Commerce Commission has suspended from April 11 to and including November 10, the operation of railroad tariffs proposing to reduce the export rates on ex-lake grain from Buffalo, N. Y., Ogdensburg, and Oswego, to Albany, New York City, Boston, Mass., and Portland, Me. The proposed rates

were designed to give these four north Atlantic ports rate equality with Philadelphia, Pa., and Baltimore, Md. (see *Railway Age* of March 19, page 128).

Hugh W. Cross Begins Service on the I.C.C.

Hugh W. Cross, former lieutenant governor of Illinois, on April 13 began his service on the Interstate Commerce Commission as successor to the late George M. Barnard for the remainder of a term ending December 31, 1950. President Truman's nomination of Mr. Cross for the position had been confirmed unanimously by the Senate on April 7,



Hugh W. Cross

the day after the nomination was reported favorably from the Senate committee on interstate and foreign commerce.

The committee had questioned Mr. Cross at a public hearing on March 22. That hearing was reported in the *Railway Age* of March 26, page 104, while a sketch of the new commissioner's career appeared in the issue of March 12, page 99.

Members Named To "40-Hour Week Committee"

Six representatives of the carriers and six representatives of the employees have been named to the "40-Hour Week Committee" established by the recent agreement between the railroads and the unions reducing the work-week of non-operating employees to 40 hr. (see *Railway Age* of March 26, page 86).

Those named to represent the carriers are:

L. W. Horning, vice-president, personnel and public relations, New York Central;
F. J. Goebel, vice-president, personnel, Baltimore & Ohio;
S. C. Kirkpatrick, assistant to vice president, Atchison, Topeka & Santa Fe;
D. P. Loomis, chairman, Association of Western Railways;
H. A. Benton, director of personnel, Seaboard Air Line, and
F. K. Day, Jr., assistant general manager, Norfolk & Western.

Representing the unions are:

Fred. N. Aten, president, International Association of Machinists;
George M. Harrison, grand president, Brotherhood of Railway Clerks;

F. C. Carroll, president, Brotherhood of Maintenance of Way Employees;
Jesse Clark, grand president, Brotherhood of Railroad Signalmen of America;
C. E. Leighty, president, Order of Railroad Telegraphers, and
George Brown, vice-president, Hotel & Restaurant Employees & Bartenders International Union.

The committee will render decisions on disputes arising in connection with application of the 40-hr. week on individual carriers. Cases are to be submitted to it prior to August 1, and its decisions will take effect on September 1, the date on which the 40-hr. week is to be established. The committee is not intended to be a permanent board. After the 40-hr. week is in effect, disputes will be handled through the regular channels provided by the Railway Labor Act, meaning in most cases, the National Railroad Adjustment Board.

Visual Instruction on Signals

The New York Central is now using colored projector slides to instruct enginemen and other employees on aspects and indications of signals. Each set, consisting of 106 slides, depicts, in colors, the various types of signals, including semaphores, searchlight color signals, dwarfs, slow boards and track pan lights. Each slide not only illustrates the aspect, but gives the wording of the indication and rule applying to that aspect. An examiner can use a slide for examination purposes by covering either portion of the slide so as to show the signal without the rule, or the rule without the signal. A set of slides, a portable projector and a screen are being furnished to each rule examiner on the system.

Justice Department Makes No Presentation Against Rate Pact

Department of Justice attorneys neither cross-examined railroad witnesses nor made any presentation on behalf of the department at last week's hearings in connection with the Interstate Commerce Commission's consideration of the rate procedures agreement proposed for commission approval by carrier members of the Western Traffic Association. The hearings, held in Washington, D. C., before Commissioners Alldredge and Rogers and Examiner J. P. McGrath, were concluded on April 8; and the commission later that day issued a notice announcing that the further hearing to be held at Dallas, Tex., has been postponed from April 19 until April 27.

The maneuver of the Justice Department came as something of a surprise in view of the fact that the department had filed with the commission comprehensive statements opposing the agreement under consideration and like pacts filed by other carrier groups. When the several railroad witnesses had completed their statements in support of the application and were tendered for cross-examination, a Justice-Department attorney, Edward Dumbauld announced that the department had no questions. He went on to assert that the evidence offered by the

railroads had been insufficient to justify a commission order approving the application; that such evidence was "irrelevant," and thus any cross-examination would be "irrelevant."

James E. Kilday, ranking Justice Department attorney at the hearing, made a like statement, adding that the railroad evidence would be insufficient to support a commission order "upon which to render moot a case now pending in the Supreme Court of the United States, or to render moot a case now pending in the U. S. district court at Lincoln, Nebr." Presumably, Mr. Kilday was referring to the state of Georgia's anti-trust suit against eastern and southern railroads, and the federal government's anti-trust complaint against western roads and the Association of American Railroads. Asked by Commissioner Rogers if the Justice Department intended to offer any evidence at the Dallas hearing, Mr. Kilday said that would depend on "contingencies that might arise."

The Washington hearings closed with the presentation of the National Industrial Traffic League, which was made by R. V. Craig, general traffic manager, Allied Mills, Inc., Chicago. Mr. Craig expressed the satisfaction of the league and shippers generally with past rate-conference procedures, which, as the railroad witnesses had pointed out, would be preserved by the proposed agreement insofar as that is possible. He mentioned several specific provisions of the proposed agreement which would modify present procedures, making them more favorable from the standpoint of shippers.

Meanwhile, Mr. Craig also suggested three "improvements" in the proposed agreement. He would include provisions whereby a shipper would be given the right to appeal to the Western Association's executive committee from decisions

of the classification committee. Second, he would remove provisions permitting a chairman of a rate committee to appeal a matter, preserving at the same time the right of a carrier or shipper to appeal. Mr. Craig's third suggestion was that the agreement should provide for the republication of rates being continued beyond an originally-published expiration date so the shippers would have notice of such extensions.

The principal railroad statement in support of the proposed agreement was made by L. R. Capron, vice-president of the Chicago, Burlington & Quincy, whose testimony was reported in the *Railway Age* of April 9, page 62. The seven other railroad executives listed in that report also made their scheduled appearances, as did three others—W. H. Dana, chairman of the Western Association's executive committee and of the Transcontinental Freight Bureau; V. T. Corbett, chairman, Southwestern Passenger Association; and E. A. Tharp, assistant freight traffic manager, Chicago, Rock Island & Pacific.

C. A. Miller, vice-president and general counsel of the American Short Line Association, stated that this association supported the application, but would offer no testimony. H. A. Cockrum, a Department of Agriculture attorney, announced that this department desired to intervene in the proceeding, but it was not taking any position with respect to the application at this time.

Grand Central Terminal Clocks To Show Daylight Saving Time

The public clocks in New York's Grand Central Terminal are being prepared for the addition of a red hour-hand so they will automatically register both standard and daylight saving time. The alterations were made necessary be-

cause of the New York, New Haven & Hartford's recent decision to list schedules of its trains in daylight time in all its public timetables beginning April 24, when d.s.t. goes into effect for 1949 (see *Railway Age* of March 12, page 120). Because of small clearances between the present hands and the glass faces and the amount of time involved in installing additional hour-hands, it is not certain the complete changeover can be accomplished by April 24.

Sixty-three clocks in the public areas inside the terminal will be changed to show both times and small signs will be affixed to each to explain the double time to travelers. The outside clock on the 42nd Street side of the terminal will not show d.s.t. because of the excessive cost of installing the necessary mechanism.

Early, Pullman Vice-President, Named Under Secretary of Defense

Stephen T. Early, vice-president of Pullman, Inc., since June 1, 1945, has been appointed by President Truman to the newly created position of under secretary of defense. The appointment was submitted to the Senate by the President on April 7, and it was confirmed by that body on April 13. At the time of his election to the Pullman vice-presidency, Mr. Early was serving as special assistant to President Truman, and he had previously been a member of the late President Roosevelt's secretarial staff.

Emergency Board in R.E.A. Case

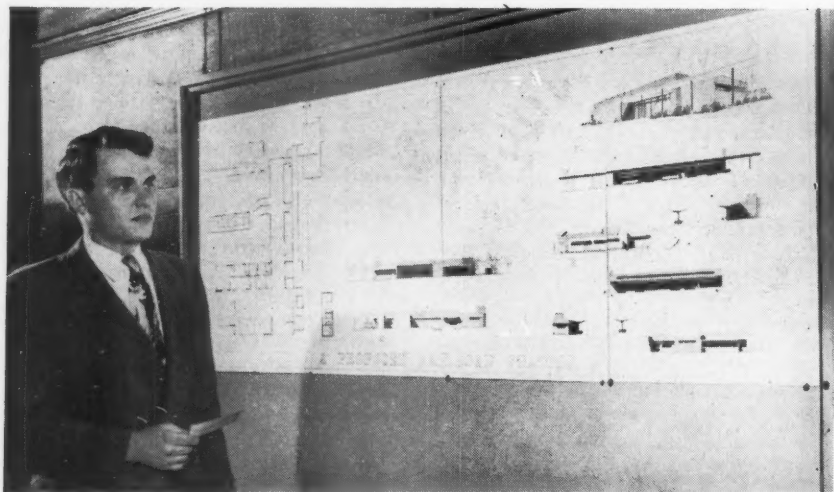
President Truman on April 9 issued an executive order creating an emergency board to investigate the dispute between the Railway Express Agency and those of its employees who are represented by the Brotherhood of Railway Clerks. The dispute, which involves wages and working hours, has resulted in the "slow-down" strike that has been in effect for some time at R.E.A.'s New York terminals.

Members of the emergency board are David L. Cole, Leverett Edwards, and Aron Horvitz. They were scheduled to begin hearings in Washington, D. C., on April 18.

Nickel Plate Takes Over Dining Car Operations

Effective April 1 the New York, Chicago & St. Louis took over operation of dining car service on its passenger trains. The cars had heretofore been operated and staffed by the Pullman Company. Six modernized diner-lounge cars are operated on trains Nos. 5 and 6 between Cleveland and Buffalo; 7 and 8 between Chicago and Buffalo, and 9 and 10 between Cleveland and St. Louis.

The dining cars are equipped with new chinaware, table silver, glassware, linen and kitchen equipment. The china is banded in blue and silver to match the color scheme of Nickel Plate



PLAN FOR WELDED RAILROAD STATION TAKES SCHOLARSHIP AWARD.—A \$250 scholarship established at the University of Cincinnati by the James F. Lincoln Arc Welding Foundation has been awarded to an architectural student for his plans for a welded suburban railroad station. The scholarship, won by James Edgar Steed, is one of four offered at the university by the foundation

Diesel passenger locomotives. A new cuisine features popular-priced luncheons and dinners. Waiters distribute brief menus, featuring low-cost meals, to coach passengers. A demi-tasse is served without charge at breakfast.

With inauguration of diner-lounge car service on the Cleveland-St. Louis run—replacing a combination diner-lounge-sleeper—a 10-section, one-compartment, one-drawing-room sleeper will be added.

M. MacEndree, dining car superintendent, will supervise operations from his Cleveland headquarters.

Freight Car Loadings

Loadings of revenue freight in the week ended April 9 totaled 757,784 cars, the Association of American Railroads announced on April 14. This was an increase of 32,161 cars, or 4.4 per cent, over the previous week, an increase of 74,850 cars, or 11.0 per cent, over the corresponding week last year, and a drop of 55 cars, or 0.01 per cent, under the equivalent 1947 week.

Loadings of revenue freight for the week ended April 2 totaled 725,623 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings For the week ended Saturday, April 2			
District	1949	1948	1947
Eastern	136,010	134,379	147,372
Allegheny	153,781	140,444	152,982
Poconos	53,831	22,019	28,766
Southern	118,462	114,415	122,260
Northwestern	104,056	81,054	85,834
Central Western	105,549	105,824	116,235
Southwestern	53,934	62,496	61,710
Total Western Districts	263,539	249,374	263,779
Total All Roads	725,623	660,631	715,159
Commodities			
Grain and grain products	40,009	38,126	49,189
Livestock	8,261	8,595	12,739
Coal	137,399	48,471	64,830
Coke	13,837	10,204	11,478
Forest products	34,113	44,308	47,394
Ore	45,936	15,708	17,735
Merchandise l.c.l.	96,758	113,729	126,841
Miscellaneous	349,310	381,490	384,953
April 2	725,623	660,631	715,159
March 26	596,329	663,663	829,392
March 19	607,767	699,593	844,041
March 12	709,326	796,486	841,147
March 5	705,552	791,984	805,775
Cumulative total 13 weeks	8,955,264	9,825,612	10,545,464

In Canada.—Carloadings for the week ended April 2 totaled 73,491 cars, compared with 73,172 cars for the previous week, and 74,459 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
April 2, 1949	73,491	30,523
April 3, 1948	74,459	36,528
Cumulative totals for Canada:		
April 2, 1949	944,196	414,997
April 3, 1948	949,935	474,496

Railroad Women Meet at Baltimore

Women excel men in many positions in the railroad industry, Roy B. White, president of the Baltimore & Ohio, told the Eastern regional meeting of the

National Association of Railroad Women at Baltimore, Md., on April 4. "Women seem particularly suited to clerical work involving accuracy and attention to detail," Mr. White said. "Women can, and do, excel in other positions which deal directly with the public."

Mr. White pointed out that a recent public opinion survey showed that 41 per cent of the people in the United States believe the railroads can give better service. "Whether these criticisms are justified or not," he concluded, "they are indicative of how and where we should direct our efforts if we want to retain and increase our passenger business. My hope is that between us, men and women, we will be able to work out a passenger service that will be within our means and still satisfy the most critical of patrons."

The meeting was conducted by Miss Helen Foreman, B.&O. transportation representative, and regional chairman of the association. Other speakers included E. C. Gegenheimer, director of public relations, Pennsylvania; W. E. Meuse, general passenger agent, B.&O., and P. L. Faustman, superintendent of passenger transportation, B.&O.

Southern Pacific Fined \$2,000

The Interstate Commerce Commission has been advised that the Southern Pacific was fined a total of \$2,000 in the United States District Court at Fresno, Calif., on April 4. The fine was imposed after the S.P. entered a plea of *nolo contendere* to 6 counts of an information consisting of 10 counts charging violation of the Elkins Act arising out of the failure of the S.P. to observe the provisions of its published tariffs. The remaining 4 counts were dismissed.

The specific offenses, according to the notice issued by the commission, were the failure of the S.P. to assess an additional 10 per cent on carload minimum weights of livestock shipments where the actual weights had not been obtained nor estimated weight certificates furnished by the shipper, and by unlawfully extending credit to livestock receivers for a period of 27 days beyond the 96 hours authorized by law.

Additional General News appears on page 105.

ORGANIZATIONS

The Central Western Shippers Advisory Board will hold its twenty-seventh annual and fifty-ninth regular meeting on June 6 and 7, at the Ben Lomond Hotel, Ogden, Utah.

Robert S. Henry, vice-president—public relations of the Association of Amer-

ican Railroads, will discuss "The Future of the Railroads" at the second annual dinner meeting of the Northern Indiana Chapter, Railway & Locomotive Historical Society, on May 10, at 6:30 p.m., in the Hotel LaSalle, South Bend, Ind.

The Women's Traffic Club of Metropolitan St. Louis will serve a buffet dinner, followed by a square dance, on April 21 at 6:30 p.m. in the Hotel DeSoto, St. Louis, Mo.

The annual banquet of the New England Railroad Club will be held on May 12, at 6:30 p.m., at the Hotel Statler, Boston, Mass.

The Western Railway Club will hold its annual meeting on May 23, at 6 p.m., at the Hotel Sherman, Chicago.

James F. Bone, manager of the industrial department of the Los Angeles, Cal., Chamber of Commerce, was the guest speaker at the April 14 meeting of the Pacific Railway Club, held in the Alexandria Hotel, Los Angeles. The subject of Mr. Bone's address was "Recent Industrial Development in the West."

At the recent annual reunion of the 734th Railway Operating Battalion Veterans Association in New Orleans, La., the following officers were elected: President, Col. Ralph E. Johnson, assistant superintendent, Victoria division, Texas & New Orleans; vice-president, C. L. Brannon, Missouri-Kansas-Texas; and secretary-treasurer, George H. Armishaw, Union Pacific.

The Car Department Association of St. Louis will hold its next meeting on April 26 at 8 p.m., at the Hotel De Soto, St. Louis, Mo. T. C. George, assistant chief inspector, Bureau of Explosives, will present a paper entitled "You and the Bureau of Explosives."

At the 73rd regular meeting of the Pacific Northwest Advisory Board, held at Portland, Ore., on March 25, and reported in the *Railway Age* of April 9, page 60, the following officers were re-elected: Chairman, executive committee, Ralph Benson, sales manager, C. D. Johnson Lumber Corporation, Portland; president, H. T. Stoddard, traffic manager, Soundview Pulp Company, Everett, Wash.; vice-president, A. M. Cloninger, manager, traffic and warehousing, Longview Fibre Company, Longview, Wash., and executive secretary, R. V. Boyle, traffic manager, Brown & Haley, Tacoma, Wash.

Lewis Pilcher, executive vice-chairman, Freight Claim Division, Association of American Railroads, was the principal speaker at a luncheon held on April 1 by the Pacific Traffic Association, Inc., of San Francisco, Cal., in cooperation with the Pacific Coast Transportation Advisory Board.

SUPPLY TRADE

C. D. Hicks & Co., Clayton (St. Louis), Mo., have been appointed railroad sales representatives in St. Louis for the **Parr Paint & Color Co.**, Cleveland, Ohio.

The **Electro-Motive Division of General Motors Corporation**, LaGrange, Ill., has announced the following changes in personnel: **W. N. Fritts**, manager, sales engineering section, promoted to assistant general sales manager; **Marvin Anderson**, manager, parts distribution, advanced to assistant general parts manager; **W. D. Davis**, general repair manager, specially assigned to coordinate and expedite new branch shop construction; **M. H. Gardner**, district sales manager at St. Louis, Mo., appointed general repair manager at LaGrange; and **C. R. Wood**, branch manager, Jacksonville, (Fla.) shop, appointed assistant general repair manager at LaGrange.

James W. Ritcey, mechanical superintendent, Pennsylvania district, **Oxweld Railroad Service Company** (unit of **Union Carbide & Carbon Corp.**), has been promoted to sales representative of the firm's New York sales office. Mr. Ritcey has been succeeded by **H. V. Dorminey**.

Hewitt-Robins, Inc., have appointed the **Mine Service Company**, Lothair, Ky., as exclusive distributor for the Hewitt Rubber division in Perry, Letcher, Knott and Leslie counties, Ky. The company also will represent the Robins conveyors division.

The **American Steel & Wire Co.**, a United States Steel Corporation subsidiary, has announced the formation of a separate mechanical spring sales division. **Charles W. Meyers**, formerly assistant manager of the metallurgical department, has been appointed manager of the new division, to be known as the spring products sales division, and **Robert D. Knight**, with the company since 1932, has been appointed assistant manager.

Jerome Sabel has been appointed to the sales staff of **E. H. Fairchild**, representatives of the **Automatic Transportation Company**, Chicago, to cover Louisiana and Mississippi.

The **D. J. Murray Manufacturing Co.**, Wausau, Wis., has appointed the following manufacturers' agents as distributors of grid unit heaters and allied products in their respective territories: **I. Ernest Shaer**, Boston, Mass.; **G. T. Pottinger & Co.**, Atlanta, Ga.; the **Jordan Engineering Company**, Cincinnati, Ohio, and the **Lefler Wyomont Supply Company**, Casper, Wyo.

The **Hyster Company**, Portland, Ore., has appointed **William Kilkenny** as district manager of industrial truck sales in the western division. Mr. Kilkenny will have jurisdiction over 11 western states

and four western provinces of Canada, as well as Alaska and Hawaii. The company also has announced the transfer of **Jack A. Cairns**, formerly assistant to the western division sales manager at Portland, to a sales engineering position in the Los Angeles, Cal., area.

G. F. Hessler, vice-president of the **Graybar Electric Company**, has been appointed to head the company's sales activities. **H. P. Litchfield**, formerly assistant general sales manager, has been appointed general supply sales manager to head all supply lines, and **C. S. Powell**, vice-president, will head appliances and communication lines. Messrs. Litchfield and Powell will be under Mr. Hessler's direction. The advertising and sales promotion department, headed by **K. B. Hopkins**, also will report to Mr. Hessler. Mr. Litchfield has been associated with Graybar for 34 years, working successively as credit manager at Boston, Mass., and New York; assistant sales manager at New York; manager at Newark, N. J.; general commercial sales manager, and until his recent appointment, assistant general sales manager.

The **Superior Railway Products Corporation**, Pittsburgh, Pa., has moved its offices to 512 Franklin avenue, Pittsburgh 21.

OBITUARY

Harry W. Protzeller, consulting engineer, **Railway Ballast Engineers, Inc.**, Milwaukee, Wis., and the designer and developer of many roadway maintenance machines, died in Milwaukee on April 6.

EQUIPMENT AND SUPPLIES

LOCOMOTIVES

New Parts for Alco-Built Steam Locomotives Made by Lima-Hamilton

Repair parts for steam locomotives which were manufactured by the **American Locomotive Company** are now available from the **Lima-Hamilton Corporation**, the two firms jointly announced on April 12. The announcement said the move "in no way alters the activities of the railway spring division of the **American Locomotive Company**, which will continue to manufacture locomotive tires, springs, box lids, pedestal liners and wear plates at its plants in Latrobe, Pa., and Chicago Heights, Ill., or of the **American Locomotive plant** at Richmond, Va., which manufactures specialties including staybolts and reverse gears. **Lima-Hamilton Corporation** has procured from **American Locomotive Company** the patterns, boiler formers and special fixtures and gages which

were used by [Alco] in the manufacture of steam locomotive parts, and also certain special machinery." It was requested that inquiries for repair parts for Alco-built steam locomotives be sent directly to **Lima-Hamilton's** plant at Lima, Ohio.

Siamese Railways Contemplate Big Equipment Orders

As reported in the *Railway Age* of March 26, page 108, a four-man mission from Siam has arrived in the United States for a three-week study of the possibilities of purchasing locomotives, cars and other equipment required for rehabilitation of the 1,900-mi. meter (39.37-in.) gage Siamese railway system.

The visit of the mission here is part of a long-term program to improve and expand Siam's railroad facilities, which were considerably damaged during the war. This program may eventually involve an expenditure of approximately \$45 million, a substantial part of which may be spent on American-made equipment.

Requirements include 50 steam locomotives (20 of the 4-6-2 type and 30 of the 2-8-2 type); 30 Diesel-electric locomotives of approximately 1,000 hp. each; some 500 freight cars built for 10-ton axle loads; 70 passenger cars of types corresponding to coaches, sleeping cars and baggage cars; 3,000 to 4,000 tons of rail; structural steel for bridge reconstruction and other steel products; railroad repair equipment; machine tools for repair shops; signaling and communications equipment, including wire and radio equipment for station-to-station communication; hand tools; parts and accessories; explosives, and paints and oils.

The delegation does not plan to enter into any contracts at the present time, but will visit a number of locomotive and car works, inspecting types of equipment required and soliciting price information. Among other points, the group plans to visit Schenectady, N. Y., Erie, Pa., Pittsburgh, Cleveland, Ohio, Chicago, Milwaukee, Wis., Los Angeles, Cal. and San Francisco. The mission will remain in the United States until April 29.

Specifications for materials for which bids are being solicited may be inspected at the New York regional office of the Department of Commerce, 42 Broadway, or at the department's Office of International Trade, Commodity Branch, Washington, D. C. The bids must be submitted in Bangkok, Siam, before June 1. Bids are also being sought in a number of other countries, and the distribution of orders will be determined by prices and delivery dates stipulated in the bids.

The mission includes **Luang Charan Snidvongs**, Undersecretary of State, Siamese Ministry of Communications; **Luang Vidura Vidhikol**, chief mechanical engineer, and **Luang Videt Yontkrich**, chief civil engineer, Royal State Railway

of Siam, both graduates of Massachusetts Institute of Technology, and Luang Thavil, director general, foreign trade department, Siamese Ministry of Commerce, a graduate of Boston University. The group is being escorted by M. L. Chuanchuen Kambhu, commercial attache of the Siamese Embassy at Washington.

SIGNALING

The Union Switch & Signal Co. is furnishing four-indication code cab signal equipments complete with inductive train communication sets for installation on Diesel-electric locomotives now on order for the Pennsylvania.

The Long Island has purchased from the Union Switch & Signal Co. four-indication coded cab signal equipment for 50 multiple-unit cars.

The Lake Terminal has ordered from the Union Switch & Signal Co. materials for power-operated switches on the storage yard track lead at Lorain, Ohio. The Style B-30 control machine includes 9 switch levers, 18 switch indication lights and a track diagram. Other material involves 9 direct-acting electro-pneumatic switch machines with ES-20 signals, relays, rectifiers, transformers and housings. Field installation will be done by railroad forces.

ABANDONMENTS

Division 4 of the Interstate Commerce Commission has authorized:

Illinois Central.—To abandon an 8.06-mile line between Manela, Ill., and BK Junction. The Commission's report stated that the rail service to the territory involved would be provided by a parallel I.C. line.

FINANCIAL

Alleghany Corporation.—*Security Transactions.*—This company has made plans to sell 225,000 shares of the common stock of the Chicago, Rock Island & Pacific, which will reduce its holdings of Rock Island securities to 25,000 common and 50,000 preferred shares. Alleghany also has reported that, among other security transactions in March, it purchased 1,300 shares of Chesapeake & Ohio common stock. Securities sold during the month included 20,800 shares of Atlantic Coast Line common stock; voting trust certificates for 1,562.85 series A preferred shares and 28,578.12 series B preferred shares of the Central of Georgia; \$2,366,244 of the Georgia's 4½ per cent income bonds; and \$1,410,000

of the first mortgage 5 per cent bonds of 1974 of the Florida East Coast.

Long Island.—Trustees.—Division 4 of the Interstate Commerce Commission has ratified the appointments of David E. Smucker and Hunter L. Delatour as trustees of this road, but has refused to ratify the appointment of James D. Saver as a third trustee. As reported in the *Railway Age* of March 19, page 105, the appointments were made by Judge Harold M. Kennedy of the United States District Court at Brooklyn, N. Y., but section 77 of the Bankruptcy Act provides that such appointments by a reorganization court become effective only upon ratification by the commission. The commission's refusal to ratify the Saver appointment was based on its conclusion that two trustees would be "sufficient to serve the interests of all parties and to effect efficient and economic operation of the debtor during the period of reorganization." Mr. Smucker has been general manager of the road, and the commission chose to ratify his appointment because "it is desirable that one of the trustees be a man experienced in railroad operations and possess knowledge of the debtor's problems." Mr. Delatour is a New York attorney whose principal occupation, the report said, "has been that of practicing attorney primarily in the field of corporation law." His appointment was ratified because "it is also desirable that one of the trustees be a person experienced in corporate affairs and handling of estates." Mr. Saver, also a New York attorney in private practice, was formerly first assistant in the Criminal Division of the Department of Justice.

Missouri-Kansas-Texas of Texas.—New Directors.—Thomas B. Cochran of Golding & Cochran, Dallas, Tex., and George M. Walter, plant manager, Owens-Illinois Glass Co., Waco, Tex., have been elected members of this road's board of directors, to succeed the late Albert T. Clifton and J. M. Bradshaw.

Rutland.—Reorganization.—The Interstate Commerce Commission has certified the results of voting on this road's approved plan of reorganization by the three classes of creditors previously found eligible to participate in the balloting. Meanwhile, Division 4 of the commission has issued a report fixing maximum limits of final allowances for services and expenses incurred in the reorganization proceeding by parties in interest and their counsel during the period generally from the inception of the bankruptcy proceeding (which succeeded a receivership proceeding) in June, 1944, to June 11, 1948.

The commission's certification of the voting on the plan showed that holders of Rutland first consolidated mortgage 4½ per cent bonds, due July 1, 1941, voted 75.88 per cent for acceptance and 24.12 per cent for rejection. Ballots cast by holders of Ogdensburg & Lake Champlain first mortgage 4 per cent bonds, due July 1, 1948, were 78.21 per

cent for acceptance and 21.79 per cent for rejection; while those cast by holders of Rutland-Canadian first mortgage 4 per cent bonds, due July 1, 1949, were 82.38 per cent for acceptance and 17.62 per cent for rejection.

Division 4's report approved allowances totaling \$52,842, slightly more than half of the \$104,742 claimed in the petitions of interested parties. John D. Babbage, president of the debtor, was allowed nothing on his claim for \$5,242. The division said that Mr. Babbage had bought and sold bonds of the debtor, while it was undergoing reorganization. In rejecting his claim for an allowance, it made this comment: "Compensable services in a bankruptcy proceeding necessarily mean loyal and disinterested services by the claimant with respect to the party for whom he purports to act The petitioner's personal interest in realizing a profit from his trading in the debtor's bonds was in conflict with the debtor's interest in petitioner's effort to formulate a bona fide plan of reorganization. Under these circumstances it is impossible to determine whether the efforts of the petitioner were to further his own interests or those of the debtor. We cannot find, therefore, that petitioner's services were of benefit to the debtor's estate and conclude that we should fix nothing as the maximum limit of allowance for both services and expenses."

Another petition on which the division also allowed nothing was that of George M. Jaffin and Vernon J. Loveland, who claimed \$13,473 as counsel for the so-called bondholders group. The division said that this group was disbanded shortly after the bankruptcy proceeding began, and that the Jaffin-Loveland request for an allowance was based "primarily" on services in connection with the equity proceeding—"on the theory that the value of such work is reflected in the plan finally approved." Noting that the court made no allowance to these petitioners in winding up the equity proceeding, the division said the record before it had disclosed "no service of material benefit to the debtor's estate" in the bankruptcy proceeding.

Allowances approved by the division included one of \$9,244 (on a claim of \$13,244) to the Central Hanover Bank & Trust Co., trustee under the first mortgage of the Ogdensburg & Lake Champlain. Rathbone, Perry, Kelley & Drye, as counsel for this trustee, received \$12,000 on a claim of \$15,000. The United States Trust Company, trustee under the Rutland's first consolidated mortgage, was allowed \$6,938 on a claim of \$8,724, while its counsel—Stewart & Shearer—got \$9,000 on a claim of \$12,000. Leonard J. Reich and J. Norman Lewis, counsel for the preferred stockholders group, were allowed \$5,642 on a claim of \$20,642; but Frank McNulty, representative of this group, got only \$49.52 on a claim of \$4,449.52. The \$49.52 was for Mr. McNulty's expenses, allowable under section 77, which, the division said, "makes no provision for payment out of

the debtor's estate of compensation for services of a representative of a stockholder group."

New Securities

Application has been filed with the Interstate Commerce Commission by: for \$5,520,000 of series DD equipment trust certificates to finance in part 1,500 50-ton steel hopper cars at a unit cost of \$3,860 and 375 50-ton flat cars at a unit cost of \$4,285, all to be built at the I.C.'s Centralia, Ill., shops at a total cost of \$7,396,875. The certificates would be dated May 1, would mature in 20 semiannual installments of \$276,000 each, beginning November 1, 1949, and would be sold on competitive bids which would fix the interest rate.

Division 4 of the I.C.C. has authorized:

Chicago, Milwaukee, St. Paul & Pacific.

—To assume liability for \$6,060,000 series HH equipment trust certificates to finance in part 2,022 box cars at an estimated total cost of \$8,088,000 (see *Railway Age* of March 26, page 112). The certificates will be dated April 1 and will mature in 30 semiannual installments of \$202,000 each, beginning October 1, 1949. The commission's report approved a selling price of 99.473 with a 2½ per cent interest rate—the bid of Harriman, Ripley & Co., and Lehman Brothers, which will make the average annual interest cost approximately 2.46 per cent. The certificates were reoffered to the public at prices yielding from 1.3 to

2.65 per cent, according to the maturity.

Illinois Central—To assume liability for \$6,360,000 series CC equipment trust certificates to finance in part the acquisition of 1,850 freight cars at an estimated total cost of \$8,527,750 (see *Railway Age* of March 19, page 106). The certificates will be dated April 1 and will mature in 20 semiannual installments of \$318,000 each, beginning October 1, 1949. The commission's report approved a selling price of 99.023 per cent for the issue with a 2½ per cent interest rate—the bid of Harris, Hall & Co., and associates, which will make the average annual interest cost approximately 2.33 per cent.

The certificates were reoffered to the public at prices yielding from 1.3 to 2.5 per cent, according to the maturity.

Average Prices Stocks and Bonds

	Apr. 12	Last week	Last year
Average price of 20 representative railway stocks	40.23	39.89	50.69
Average price of 20 representative railway bonds	87.68	87.09	88.06

Dividends Declared

Cleveland, Cincinnati, Chicago & St. Louis.—5% preferred, \$1.25, quarterly, payable April 30 to holders of record April 15.
Louisville & Nashville.—88¢, quarterly, payable June 13 to holders of record May 2.
Northern of New Hampshire.—\$1.50, quarterly, payable April 30 to holders of record April 14.
Ontario & Quebec.—\$3.00, semiannual, payable June 1 to holders of record May 2.
Philadelphia & Trenton.—\$2.50, quarterly, payable April 10 to holders of record April 1.

ANNUAL REPORTS

In previous years, *Railway Age* has summarized data from railroad annual reports individually in the Financial News column. This year, such reports will be presented in tabular form, in the belief that this type of presentation will make it easier to locate figures and to make comparisons between different railroads or between different years on the same road. The first 12 1948 annual reports to be received were summarized in the *Railway Age* of April 2, page 60; 13 more are summarized below; others will be published from time to time as additional reports are received.

Railroad	Operating Revenues	Operating Expenses	Fixed Charges	Net Income	Current Assets*	Current Liabilities*	Long Term Debt*
Canadian National.....	1948 \$491,544,359	\$464,739,970	.....	\$33,532,741d	\$137,274,712	\$92,464,159	\$584,232,658
	1947 438,269,950	397,122,607	.....	15,885,194d	123,343,744	81,650,562	582,859,761
Chesapeake & Ohio.....	1948 334,555,156	253,899,638	\$9,438,097	29,791,435	109,367,926	82,002,842	329,784,000
	1947 312,953,036	232,668,989	8,832,683	35,387,327	93,401,825	71,711,850	267,453,400
Chicago & Western Indiana.....	1948 169,432†	506,810	2,700,587	10,638d	4,159,702	2,935,769	80,007,145
	1947 169,432	506,810	2,733,605	275,737	4,294,086	3,122,371	79,966,542
Chicago, Rock Island & Pacific.....	1948 197,404,989	143,163,105	1,411,256	18,792,509	75,319,151	45,852,718	77,151,305
	1947 178,070,613	131,208,605	12,618,144	9,288,187	121,486,229#	65,159,988#	113,195,090#
Illinois Terminal.....	1948 13,374,067	9,223,570	556,401	1,399,681	5,302,746	4,351,072	16,002,607
	1947 11,899,083	7,976,348	557,816	1,263,689	5,511,641	4,010,967	14,548,000
New York, Chicago & St. Louis.....	1948 109,481,654	74,255,193	3,535,079	15,353,838	31,089,469	25,746,066	121,534,484
	1947 92,520,641	67,245,584	3,466,523	8,178,012	28,859,186	22,093,534	121,066,659
New York, New Haven & Hartford.....	1948 171,391,813	135,370,332	6,519,516	5,799,596	49,476,280	31,121,192	218,777,500
	1947 155,815,387	127,159,796	9,112,177	2,190,260d	69,035,994	35,376,147	230,574,727
New York, Ontario & Western.....	1948 7,957,497	7,434,554	1,493,565	2,333,736d	1,171,619	6,562,507	39,058,707
	1947 8,292,068	7,806,219	1,467,051	2,855,700d	1,295,993	5,206,574	37,278,407
Peoria & Eastern.....	1948 6,129,040	5,051,399	11,845	323,847	3,210	3,210	10,158,725
	1947 5,360,213	4,580,111	86	221,502	3,210	3,210	11,856,638
Southern.....	1948 245,013,413	184,606,915	12,740,739	19,248,065	96,062,642	58,414,436	242,099,820
	1947 222,833,435	171,673,513	12,716,756	11,892,760	90,270,637	54,086,173	229,314,260
Toronto, Hamilton & Buffalo.....	1948 4,863,423	2,920,318	43,173	1,243,592	2,855,266	1,599,615	1,200,000
	1947 4,413,074	2,487,330	66,048	1,202,207	2,801,648	2,063,580	1,400,000
Wabash.....	1948 107,361,529	77,044,304	1,717,890	10,997,653	47,074,449	32,770,910	67,001,054
	1947 94,657,837	69,407,447	1,742,133	7,844,570	41,477,329	28,318,463	67,658,795
Wheeling & Lake Erie.....	1948 37,100,028	22,699,050	860,081	8,914,743	19,147,676	10,246,199	34,899,500
	1947 30,265,183	19,770,948	644,556	6,480,359	16,816,929	9,136,942	25,697,000

* On December 31.

d Deficit.

† Absorbed by joint facility account.

On January 1, 1948.

CONSTRUCTION

Canadian Pacific.—This road is undertaking the following projects: Construct, at Fort William, Ont., a new freight shed (contract awarded to Barnett-McQueen Company, Fort William), a reinforced concrete pedestrian subway under tracks at McTavish street (contract to Thunder Bay Harbor Improvements, Ltd., Port Arthur, Ont.), and an overhead crossing at Pacific avenue (contract pending); replace boilers in boiler plant, construct radial brick chimney and install overhead coal bunker and mechanical coal and ash handling equipment (contract pending), at Ignace, Ont., construct new icehouse in "M" yard at Winnipeg, Man., three yard tracks totaling 5,000 ft. at Alyth, Alta., and two additional storage tracks totaling 2,600 ft. at Exshaw, Alta.; replace water treating plant in power house at Regina, Sask.; replace 40,000-gal. wood water tank with 100,000-gal. steel tank at Bassano, Alta.; replace pile and frame trestle with reinforced culvert and fill at Mile Post 15.2 on Rosemary (Alta.) subdivision; replace pile and frame trestles in kind and fill at M. P.'s 74.9, 78.1 and 82.6 on Hoadley (Alta.) subdivision; replace timber coal-plant with 50-ton steel coaling plant at Kamloops, B. C.; rebuild 17-bent pile and frame trestle at M. P. 29.3 on Kaslo

A unit of POWER



THIS LOCOMOTIVE is a unit of power. It illustrates a significant fact.

Where the amount of power that can be packed into a single unit is important — where you want 6000, 8000, even 10,000 horsepower in one engine — the steam locomotive is unchallenged.

We build such locomotives — steam locomotives like this that have developed 8000 horsepower and can do more. We will continue to do so. They are fine pieces of machinery. Modern in every respect, they are establishing remarkable records for economy, reliability and low maintenance.

Don't sell these steam giants short. They have their place — and in their place are unsurpassed.



DIVISIONS: Lima, Ohio — Lima Locomotive Works Division; Lima Shovel and Crane Division. Hamilton, Ohio — Hooven, Owens, Rentschler Co.; Niles Tool Works Co. Middletown, Ohio — The United Welding Co.

PRINCIPAL PRODUCTS: Locomotives; Cranes and shovels; Niles heavy machine tools; Hamilton diesel and steam engines; Hamilton heavy metal stamping presses; Hamilton-Kruse automatic can-making machinery; Special heavy machinery; Heavy iron castings; Weldments.

(B. C.) subdivision and 40-bent pile and frame trestle at M. P. 24.4 on Port Alberni (B. C.) subdivision; develop new water supply at Lanigan, Sask., enlarge reservoir of water supply at Piapot, Sask; extend intake on present water supply to a point on Red Deer river at Innisfail, Alta.; and construct dam and pumphouse and install pumps, power line and pipe line for water supply purposes at Swift Current, Sask.

Denver & Rio Grande Western.—This road is constructing 16,565 ft. of industrial trackage to serve the Osage Coal Company at Milner, Colo., at a cost of \$42,600. The company is also developing the 12th Avenue industrial district in Denver, Colo., at an estimated expenditure of \$46,500. A \$24,413 contract for loading 101,723 net tons of slag ballast at Leadville, Colo., has been awarded to the Hinman Brothers Construction Company.

Norfolk Southern.—This road has authorized the changing of 75-lb. rail to 100-lb. rail at Albemarle Sound bridge, N. C., at a probable cost of \$40,696. It has also authorized the purchase and refitting of a private car at a probable cost of \$35,000.

Southern.—This road has authorized the following projects, to be undertaken by company forces at the indicated probable costs: Alter and add to roundhouse for Diesel locomotive repair facilities at Spencer, N. C. (\$132,000); replace timber trestle with steel bridge near Rock Hill, S. C. (\$32,000); rebuild overhead highway bridge at Corinth, Ky. (\$30,700); construct spur track at Ottley, Ga. (\$34,060); rearrange tracks and extend passing track at Bridgewater, N. C. (\$43,000); rearrange and extend tracks at Old Fort, N. C., (\$60,000); install new No. 20 crossover and provide advance track for 4-unit Diesel trains at New Line, Tenn. (\$25,000); and extend passing tracks at Oyama, N. C. (\$21,000), Barber (\$24,500), Eufola (\$32,150), and Blair, Tenn. (\$22,940).

RAILWAY OFFICERS

EXECUTIVE

W. L. More, whose appointment as assistant to operating vice-president of the Atchison, Topeka & Santa Fe at Chicago, was reported in the *Railway Age* of March 5, was born on October 5, 1899, at Armanda, Cal. After graduation from high school at Riverside, Cal., in June, 1917, he entered Santa Fe service at that point as a clerk-stenographer. He was transferred to the Albuquerque (N. M.) division in 1920, and appointed secretary to superintendent on the Los Angeles (Cal.) division in 1923. He subsequently served as assistant chief clerk,

transportation inspector and chief clerk, becoming trainmaster at Winslow, Ariz., in 1935. In July, 1940, he was transferred to Fresno, Cal., and in January, 1942, was promoted to superintendent on the San Francisco (Cal.) division, in



W. L. More

which post he served until his appointment as assistant general manager at Los Angeles. Mr. More was transferred to La Junta, Colo., in March, 1946, as assistant general manager, the position he held until his recent appointment.

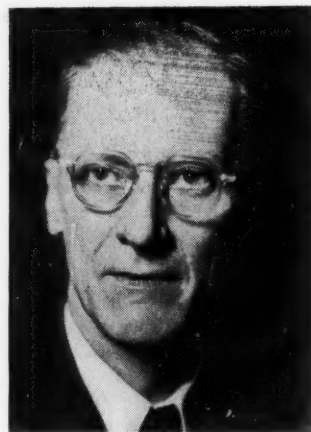
H. H. Henderson, assistant to the president of the Wheeling & Lake Erie at Cleveland, Ohio, has retired at his own request, after 50 years of service with that company. His duties will be taken over by the general manager. Mr. Henderson was born at Navarre, Ohio, on November 7, 1882, and entered railway service in March, 1899, as maintenance of way painter with the W. & L. E. He served as clerk from May to September, 1904, then becoming chief clerk, which position he held in the offices of the consulting and construction engineer and of the chief engineer, successively. In September, 1909, he became clerk in the auditor's office and from August, 1910, to November, 1918, served as shop accountant and auditor of shop and division accounts. Mr. Henderson was appointed federal auditor in November, 1918, auditor in March, 1920, comptroller in February, 1925, and assistant general manager in January, 1929. He had been assistant to the president since January, 1948.

Harry P. Congdon, whose appointment as vice-president and general manager of the Minnesota Transfer and the St. Paul Union Depot at St. Paul, Minn., was reported in the *Railway Age* of April 2, was born on September 24, 1891, at Chicago. He attended high school at St. Paul, and in December, 1905, entered railroad service with the Chicago, St. Paul, Minneapolis & Omaha as a clerk in the right-of-way department. Two years later he was transferred as clerk and stenographer to the general superintendent's office, and in 1913 became in-

spector of trains and stations. From May, 1917, to February, 1929, he served as trainmaster at Spooner, Wis., and Itasca, and as assistant superintendent at Eau Claire, Wis., and St. James, Minn. He was subsequently appointed assistant to general manager at St. Paul, and was advanced to assistant to vice-president and general manager at that point in July, 1929. Mr. Congdon was promoted to assistant to executive vice-president at St. Paul in August, 1937, becoming general superintendent there in May, 1942, which post he held at the time of his recent appointment.

FINANCIAL, LEGAL & ACCOUNTING

Thomas P. Carter, whose appointment as auditor of disbursements of the Southern System at Washington, D. C., was reported in the *Railway Age* of March 5, was born on June 5, 1891, at Charlottesville, Va., and entered the service of the Southern in January, 1908, as a clerk at Alexandria, Va., later transferring to



Thomas P. Carter

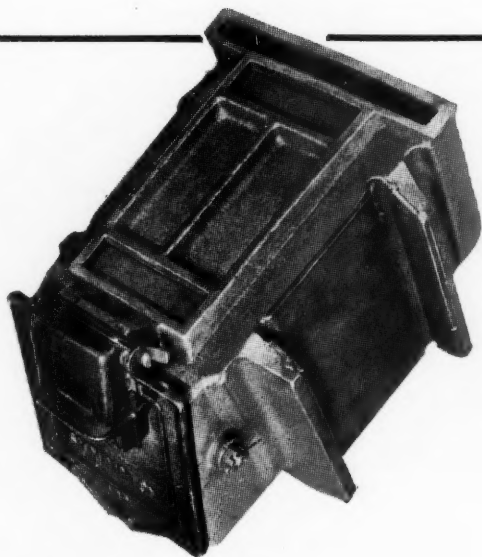
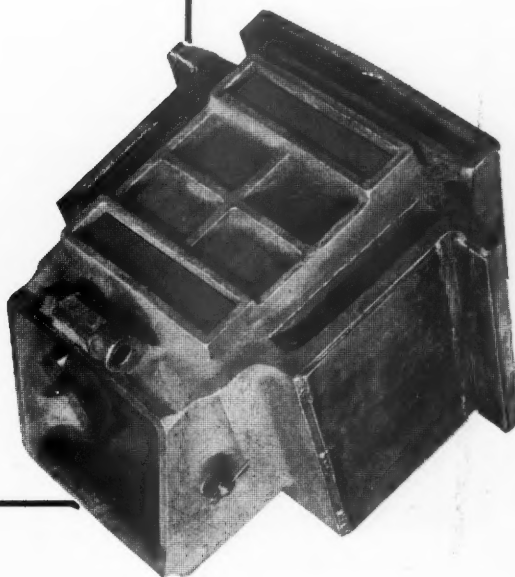
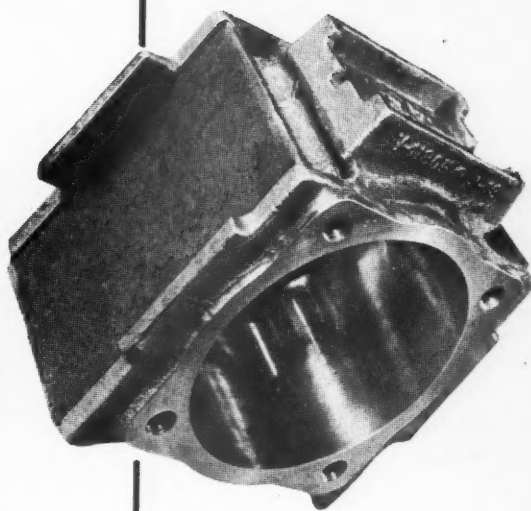
Washington. On February 1, 1921, Mr. Carter was promoted to special traveling auditor, with headquarters at Alexandria, and on January 1, 1932, was appointed assistant auditor of disbursements at Washington, which position he held until his recent appointment as auditor of disbursements.

Lawrence K. Connell, whose appointment as assistant general counsel of the Pennsylvania at Philadelphia, Pa., was reported in the *Railway Age* of April 2, was born at Philadelphia and received his LL.B. degree from Temple University in 1930. Mr. Connell has been with the legal department of the Pennsylvania since 1916, except for service in the United States Army from February, 1918, to June, 1919. He was assistant general solicitor at Philadelphia at the time of his recent promotion.

Robert A. Daley, whose appointment as auditor of disbursements of the Jersey Central Lines at Jersey City, N. J., was reported in the *Railway Age* of April 9, was born at North Plainfield, N. J., and

JOURNAL BOXES

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We have the facilities for manufacturing both surface-bearing and roller-bearing boxes from raw material to finished box entirely within one plant. Boxes are made of electric furnace steel, cast in our own foundry — and are machined on modern equipment by trained personnel accustomed to close tolerances. We invite your inquiries.



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started his career with the Jersey Central in 1917 as a rodman in the chief engineer's office. Four years later Mr. Daley transferred to the accounting department, where he subsequently served in various positions, including the chief clerkship in the auditor of disbursements' office. He was appointed assistant to the chief accounting officer in September, 1947, which position he held until his recent appointment as auditor of disbursements.

OPERATING

L. A. Gregory, whose appointment as general superintendent of transportation of the Missouri Pacific's System Lines, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of March 19, was born at Caddo, Indian Territory, on December 1, 1895. He entered railroad service in 1912 with the St. Louis Southwestern at Tyler, Tex., and joined the M. P. at Houston, Tex., in 1919. He later served in various clerical capacities until 1923, when he became superintendent of transportation of the International-Great Northern (part of M. P.). From



L. A. Gregory

1926 to 1930, he served as trainmaster on the Gulf Coast Lines (also part of M. P.) at DeQuincy, La., and was subsequently advanced to assistant superintendent on the same lines. He was promoted to superintendent of the I.-G. N. at Palestine, Tex., in 1939, and two years later was appointed assistant general superintendent of transportation of the G. C. L. and the I.-G. N. at Houston. In September, 1943, Mr. Gregory was advanced to assistant general manager of the company's lines in Texas and Louisiana, which post he held at the time of his recent appointment.

Charles A. Fink, whose promotion to general manager of the Southern district of the Missouri Pacific, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of March 19, began his railroad career as a telegrapher. He joined the M. P. in 1920 as a dispatcher at Illmo, Mo., and later served as trainmaster successively at Little Rock, Ark.,

Coffeyville, Kan., and Arkansas City. He was subsequently advanced to assistant superintendent at Atchison, Kan., and was promoted to superintendent at Kansas City, Mo., in 1936. The following year he was transferred to Wichita, Kan.,



Charles A. Fink

where he remained until 1942, when he was appointed general superintendent of the Southern district, with headquarters at Little Rock. Mr. Fink became assistant general superintendent of transportation at St. Louis, Mo., in October, 1945, which position he held at the time of his recent promotion.

Clyde W. Pace, whose appointment as general manager of the Western district of the Missouri Pacific, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of March 19, was born at Knobnoster, Mo., on August 8, 1893. He entered M. P. service in 1910 as a telegrapher, and subsequently held positions as dispatcher, chief dispatcher,



Clyde W. Pace

trainmaster and assistant superintendent. He was promoted to superintendent at Poplar Bluff, Mo., in 1939, and was transferred to Kansas City, Mo., in 1942. From November, 1942, to May, 1943, he served as deputy associate director with the Office of Defense Transportation at St. Louis, Mo., in which position he

had charge of expediting war-time traffic, especially oil, from the southwest. Mr. Pace later returned to the M. P. as assistant general superintendent of transportation. In 1945 he became general superintendent of transportation, which position he held at the time of his recent appointment.

J. F. Gruber, assistant superintendent of the Philadelphia division of the Reading at Philadelphia, Pa., has been promoted to superintendent of that division, succeeding **G. F. VanLuvanee**, who has been assigned to other duties because of ill health. **F. E. Trout** has been appointed assistant superintendent transportation at Philadelphia, succeeding **J. F. Niland**, who has been promoted to assistant superintendent of the Philadelphia division.

W. A. Catlett, trainmaster of the Missouri Pacific at Jefferson City, Mo., has been promoted to assistant superintendent at Atchison, Kan., succeeding the late **F. A. Roberson**. **J. S. Seifert**, assistant trainmaster at Hoisington, Kan., has been transferred to Van Buren, Ark., to succeed **E. J. Drimmel**, who has replaced Mr. Catlett.

H. E. Petersen, chief clerk to the general manager, Eastern district, of the Union Pacific at Omaha, Neb., has been promoted to assistant to general manager at that point.

W. C. Foster, assistant superintendent of the Texas & Pacific at Fort Worth, Tex., has been promoted to division superintendent at Alexandria, La., succeeding **G. R. French**, who has been advanced to assistant director of personnel at Dallas, Tex. **K. D. Hestes**, trainmaster at Alexandria, has been transferred to Mineola, Tex., succeeding **T. E. Albright**, who has replaced Mr. Foster. **O. C. Pre-witt**, district roadmaster at Marshall, Tex., has succeeded Mr. Hestes.

Elgin Hicks, general superintendent of the Union Pacific's Eastern district at Cheyenne, Wyo., has been transferred to the road's Northwestern district, at Pocatello, Idaho. He has been succeeded by **V. W. Smith**, general superintendent of the South-central district at Los Angeles, Cal.

TRAFFIC

Adolph Kuepfert, whose promotion to general freight agent of the Missouri Pacific Lines at St. Louis, Mo., was reported in the *Railway Age* of March 12, was born on June 11, 1894, at St. Louis, Mo. He attended the local public schools and, in 1911, entered M. P. service in the freight traffic department in his native city. He served continuously in the same department, holding various positions dealing with rates and divisions. During World War I he served as a member of Battery B, 128th Field Artillery, of the American Expeditionary

Don't make stepchildren of your steam locomotives



Surely it is important to protect your investment in your existing steam motive power. There are plenty of veteran steam locomotives which — merely with the modernization of certain features—can turn in a good profit on their operation for many years to come.

The installation of Security Circulators, for example, will definitely improve steaming performance and make possible much greater locomotive utilization — sufficient to rapidly repay the installation cost.

The many advantages resulting from the use

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For oil-burning steam locomotives the American Arch Company recently developed and introduced the Security Dutch Oven. Its value in improving combustion has been recognized by a number of railroads, which have already installed Dutch Ovens in over two hundred locomotives.

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Forces, returning to the M. P. after his discharge in 1919. He was advanced to assistant general freight agent at St. Louis in April, 1934, which position he held at the time of his recent promotion.

William H. McCune, whose retirement as general freight agent of the Union Pacific at Los Angeles, Cal., was reported in the *Railway Age* of April 2, was born on October 5, 1885, at Nephi, Utah. He entered U. P. service in July, 1904, in the accounting department at Salt Lake City, Utah. After serving as brakeman at Salt Lake City for two years, he was transferred to the traffic department at that point in November, 1908. Mr. McCune was appointed rate clerk at Los Angeles in February, 1922, and was advanced to general freight agent in 1939.

A. R. Bogan, assistant general freight agent of the Missouri Pacific Lines, at St. Louis, Mo., has retired after more than 36 years of service.

The office of **R. O. Fawcette**, general Western agent of the Rutland at Chicago, formerly located at 600 LaSalle Street Station, has been moved to Room 1124, Utilities Building, 327 South LaSalle street.

H. D. Sweetin, whose appointment as freight traffic manager—sales and service of the St. Louis-San Francisco at St. Louis, Mo., was reported in the *Railway Age* of March 26, was born on December 2, 1899, at St. Louis, Mo., and entered railroad service with the Frisco in 1919. In 1936 he was advanced to freight and passenger agent at Pensacola, Fla., and the next year was ap-



H. D. Sweetin

pointed chief clerk to traffic manager at Memphis, Tenn. He was transferred to Little Rock, Ark., as traffic representative in January, 1938, and became general agent at Atlanta, Ga., in June, 1940. Mr. Sweetin was promoted to traffic manager at Tulsa, Okla., in November, 1945, and was subsequently transferred to St. Louis, where he was located at the time of his recent appointment.

MECHANICAL

Robert B. Wheeler, master mechanic of the Southern at Richmond, Va., has retired after 43 years of service.

A. R. Snyder, whose promotion to assistant general superintendent of motive power and machinery for the Union Pacific at Salt Lake City, Utah, was reported in the *Railway Age* of April 9, was born at North Platte, Neb., on August 24, 1906. He entered U. P. service in June, 1920, as a carman apprentice, and subsequently served in several mechanical positions until January, 1941, when he was advanced to master mechanic at



A. R. Snyder

Council Bluffs, Iowa. He was transferred to Cheyenne, Wyo., a year later, and returned to his former post at Council Bluffs in November, 1943. The next year he was again transferred to the Wyoming division as master mechanic, advancing to superintendent of motive power and machinery at Omaha, Neb., in November, 1945. Mr. Snyder became mechanical superintendent of Diesel power at Omaha, in July, 1947, which position he held at the time of his recent promotion.

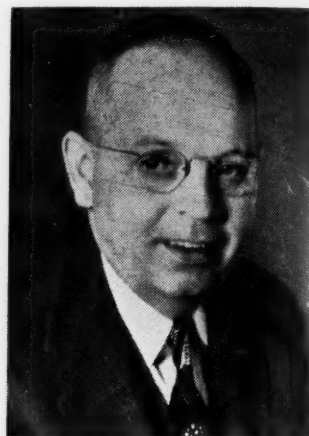
PURCHASES & STORES

L. M. Delong, general storekeeper of the Chicago & Illinois Midland, at Springfield, Ill., has retired after 46 years of railroad service. He is succeeded by **J. J. Rodems**.

SPECIAL

Arthur C. Carlson, who has served in the public relations department of the Illinois Central at Chicago since September, 1946, has been promoted to assistant in public relations at that point, succeeding **E. M. Claypool**, whose resignation was reported in the *Railway Age* of December 11, 1948. Mr. Claypool has since opened his own public relations counseling business.

William J. Davis, whose promotion to chief of police, Big Four district, New York Central, at Cincinnati, Ohio, was reported in the *Railway Age* of April 2, entered railroad service with the N. Y.



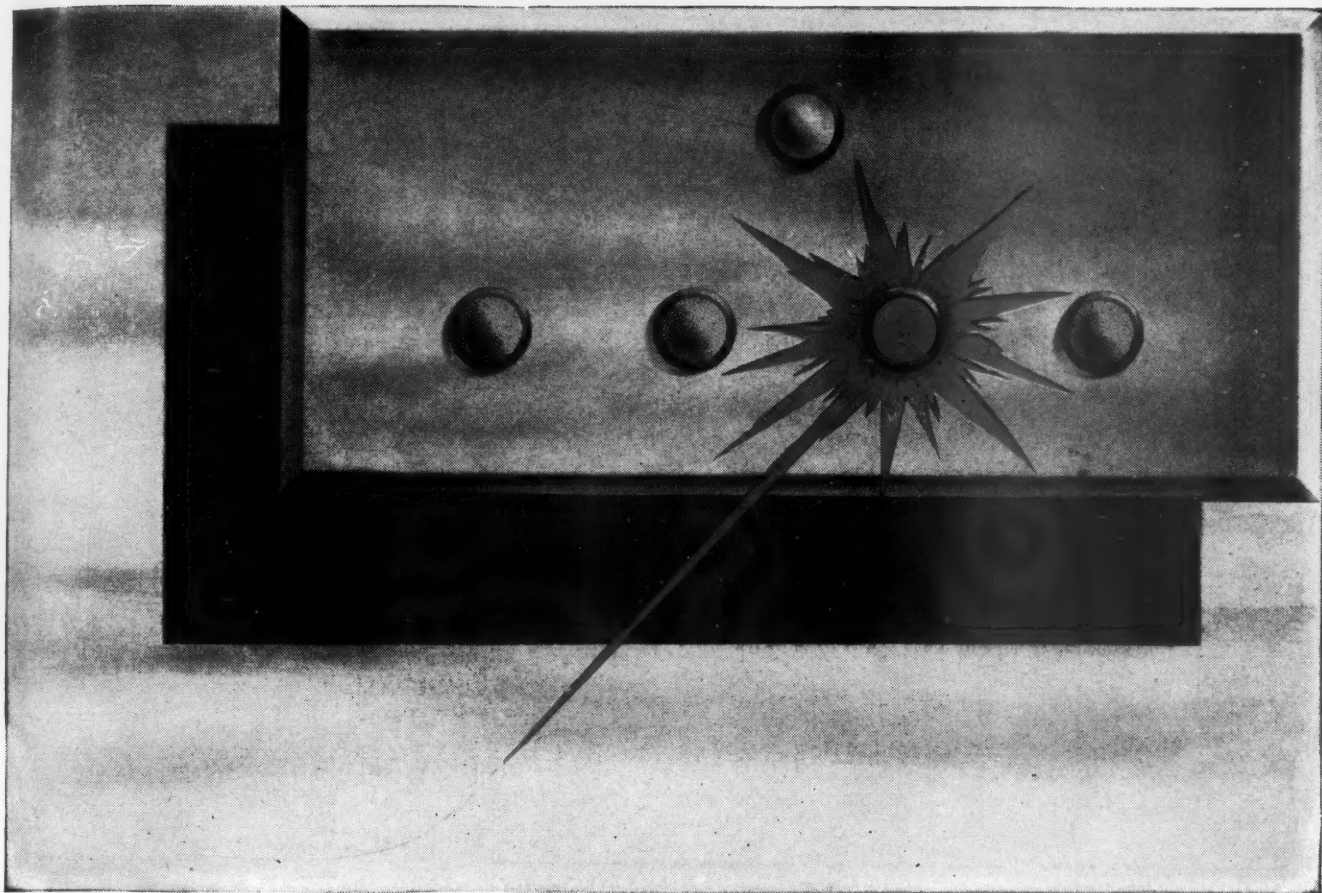
William J. Davis

C. on September 16, 1913, as a patrolman at Syracuse, N. Y. He was advanced to lieutenant at that point in May, 1919, and became captain at Buffalo, N. Y., in September, 1924. Mr. Davis was serving in the latter post at the time of his recent promotion.

OBITUARY

Orin M. Dawson, general superintendent of the Western general division of the Norfolk & Western at Bluefield, W. Va., died of a heart attack on April 11 at the Hotel Roanoke, Roanoke, Va., where he was attending his railroad's 24th annual Better Service Conference. Mr. Dawson was born at Bluefield on June 3, 1897, and attended Emory & Henry College, Emory, Va., and Roanoke College, Salem, Va. During school vacations from 1911 to 1915 he served as laborer in the motive power department of the N. & W.; then in the engineering department during vacations from 1915 to 1917. He enlisted in the United States Army on May 2, 1917, and served with the American Expeditionary Forces in France and the Army of Occupation in Germany. Re-entering the motive power department of the N. & W. in June, 1922, he became assistant roadmaster in August, 1923; roadmaster on the Shenandoah division in January, 1927; and assistant superintendent in July, 1929, serving on the Shenandoah, Radford, Scioto and Pocahontas divisions until July, 1938. Mr. Dawson then became superintendent of the Pocahontas division, transferring to the Scioto division on January 1, 1940. Eleven months later he was promoted to general superintendent of the Eastern general division at Roanoke, transferring to the Western general division at Bluefield on January 1, 1942.

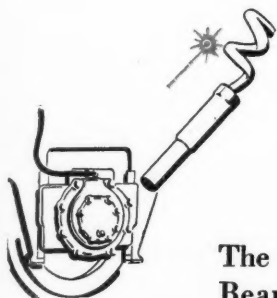
F. A. Roberson, assistant superintendent of the Missouri Pacific at Atchison, Kan., died recently.



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Electric Eye

on the bearings



The Westinghouse-Union Hot Bearing Detector brings an important new safeguard to passenger equipment. It solves the problem of hot bearing detection.

Any undue rise in the temperature of an individual bearing is immediately detected and reported—by red light to the train crew, by signal whistle to

the engineer—BEFORE any damage results.

The device disregards temperature fluctuations due to weather and operating conditions; only the abnormal, threatening rise causes it to react.

Leaflet No. 2464 gives the complete story of principle and operation. We will be glad to send you a copy.



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RECORD OF THE "EAGLES"



The COLORADO EAGLE—Fast sleeper service between St. Louis and Denver, 1021 miles. General Motors Diesel mileage, 4,734,701—Availability,* 97.3%. EARNED ITS COST IN 270 DAYS.

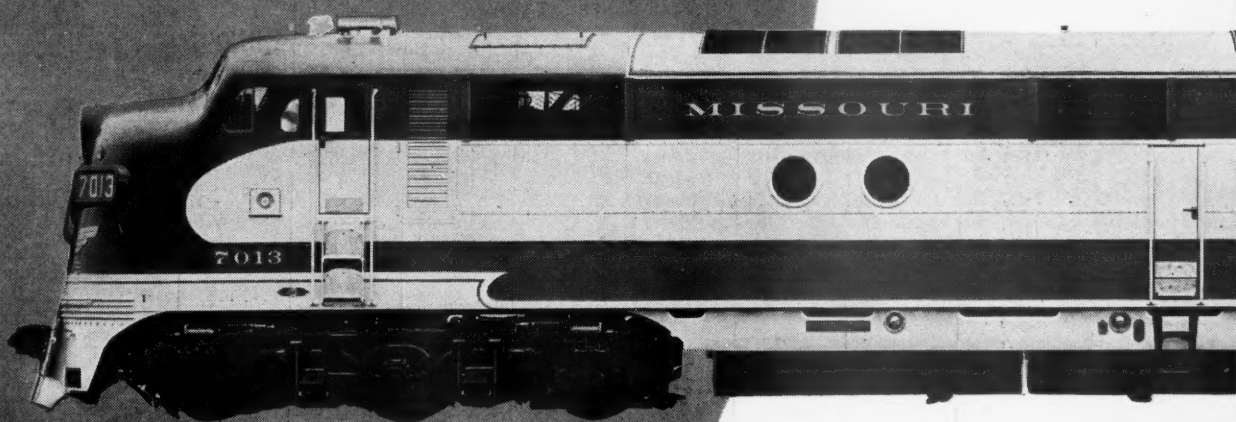
Earnings of the Missouri Pacific's streamlined fleet of General Motors Diesel-powered "Eagles" show a handsome profit in every class of service — ranging all the way from the 1021-mile overnight run of the combination coach and sleeping car "Colorado" to the 518-mile daily round trip of the two-car "Delta."

The "Colorado Eagle" returned its entire initial cost in the first 270 days of operation; the "Missouri River Eagle" in two and one half years; and the "Delta Eagle," operating in low-traffic territory, in a little over four years.

On a low-schedule run, where a few cents one way

or the other make the difference between a losing train and a money-maker, the faster, more regular, "on-time" performance — peak availability — quick turn-arounds — and the low-cost operation of General Motors Diesel locomotives are just as important as they are on premier trains.

Last year two new "Eagles" joined the fleet — the "Texas Eagle," cutting hours off the schedule between St. Louis and the principal cities of Texas; and the "Valley Eagle," an all-coach streamliner serving Houston, Corpus Christi and the Rio Grande Valley. Both are powered by General Motors Diesels.



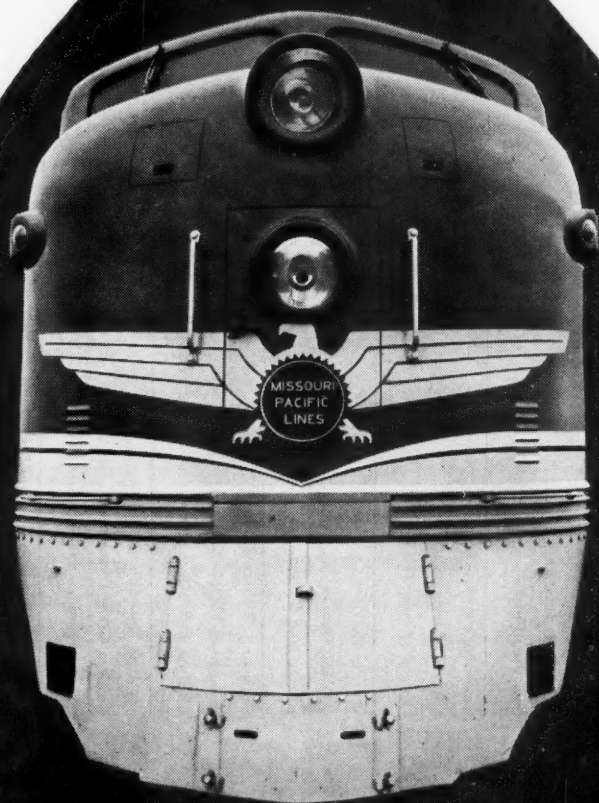
The MISSOURI RIVER EAGLE—Fast daylight schedules between St. Louis and Omaha, 478 miles. General Motors Diesel mileage, 2,870,366 — Availability,* 93.1%. **EARNED ITS COST IN 2½ YEARS.**

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The DELTA EAGLE—Coach and grille coach—518-mile round trip between Memphis and Tallulah, La. General Motors Diesel mileage, 1,340,630 —Availability,* 94.3%. **EARNED ITS COST IN 4 YEARS AND 2 MONTHS.**

**Availability based upon assigned mileage to December 31, 1948.*

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1919

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Way and structures	Maintenance of equipment	Traffic			Railway tax accruals	1919
Akron, Canton & Youngstown.....	Feb. 171	405,218	49	418,695	77,699	47,402	29,561	73.5	111,120	42,334	103,894
Albany, Canton & Youngstown.....	2 mos. 171	834,275	130	864,422	156,097	101,209	58,735	72.8	235,381	91,542	193,671
Atchison, Topeka & Santa Fe System.....	Feb. 13,103	29,372,106	3,805,750	36,441,657	5,474,077	7,963,431	13,298,838	80.7	7,049,980	4,091,405	3,242,157
Atlanta & St. Andrews Bay.....	2 mos. 13,103	59,032,437	8,177,705	74,013,756	11,063,696	16,101,032	17,355,899	81.5	13,720,980	7,991,996	5,804,073
Atlanta & St. Andrews Bay.....	Feb. 82	168,753	1,071	176,475	28,278	14,132	6,794	60.8	69,650	25,750	41,070
Atlanta & St. Andrews Bay.....	2 mos. 376,162	376,162	2,602	391,779	391,779	34,960	13,645	59.1	160,241	64,396	76,844
Atlanta & West Point.....	Feb. 93	231,901	38,890	305,655	35,090	48,912	16,486	94.1	18,011	15,942	11,857
Western of Alabama.....	2 mos. 93	491,363	96,710	668,297	70,414	105,664	29,767	89.2	72,344	49,367	25,365
Atlantic Coast Line.....	Feb. 133	252,500	38,588	317,203	38,256	53,812	14,618	86.9	41,491	28,371	14,057
Atlantic Coast Line.....	2 mos. 133	515,514	94,815	669,446	64,150	113,804	29,581	86.8	88,675	62,944	79,858
Atlantic Coast Line.....	Feb. 5,562	8,666,733	2,112,679	11,538,414	1,558,154	1,913,474	3,194,445	77.3	2,613,701	1,100,000	1,226,436
Atlantic Coast Line.....	2 mos. 17,745,052	4,342,104	23,751,681	3,145,404	4,011,365	657,774	9,633,516	78.2	5,170,254	2,200,000	2,418,824
Charleston & Western Carolina.....	Feb. 343	372,533	3,388	384,414	74,241	71,594	15,267	87.4	48,607	30,000	10,609
Baltimore & Ohio.....	2 mos. 343	772,390	7,562	800,654	166,226	162,448	30,904	89.8	81,976	55,000	12,683
Baltimore & Ohio.....	Feb. 6,202	26,045,162	1,701,824	29,238,457	3,037,219	6,041,379	7,022,802	80.7	5,657,604	2,598,302	2,758,941
Staten Island Rapid Transit.....	2 mos. 6,202	53,856,104	3,727,741	60,724,075	6,621,223	12,689,646	1,343,674	81.3	11,369,748	5,366,401	5,780,032
Bangor & Aroostook.....	Feb. 602	1,619,418	33,344	1,675,873	266,473	185,513	9,266	52.5	796,235	336,825	435,222
Bessemer & Lake Erie.....	2 mos. 602	2,830,192	75,314	2,965,156	497,440	366,659	22,371	57.3	1,264,773	559,250	680,494
Boston & Maine.....	Feb. 214	1,866,000	842	1,866,842	487,748	381,317	18,012	91.7	99,748	130,745	156,499
Boston & Maine.....	2 mos. 214	2,407,988	2,130	2,447,456	304,872	973,277	37,291	91.3	213,159	282,086	332,517
Burlington-Rock Island.....	Feb. 1,757	4,833,476	1,096,505	6,501,257	1,090,780	1,996,456	5,487,396	84.4	1,013,861	505,525	251,792
Burlington-Rock Island.....	2 mos. 1,757	10,083,425	2,222,175	13,486,737	2,195,310	2,561,586	207,204	84.3	2,120,629	1,049,829	503,985
Cambria & Indiana.....	Feb. 228	340,465	45,561	407,412	39,171	37,795	15,267	62.6	152,401	10,115	96,324
Canadian Pacific Lines in Maine.....	2 mos. 228	595,244	98,361	737,047	84,368	79,214	10,942	71.9	206,811	17,780	92,457
Canadian Pacific Lines in Maine.....	Feb. 35	152,095	.....	152,095	12,608	839	26,940	85.6	21,884	55,255	68,709
Canadian Pacific Lines in Maine.....	2 mos. 35	3,070,040	.....	3,070,040	244,346	53,596	244,346	79.5	62,775	122,630	155,314
Canadian Pacific Lines in Maine.....	Feb. 234	677,513	33,249	731,477	86,477	100,656	262,341	61.3	261,420	25,751	161,099
Canadian Pacific Lines in Maine.....	2 mos. 234	1,385,473	85,027	1,520,962	156,025	204,457	936,918	61.6	584,064	52,137	359,636
Central of Georgia.....	Feb. 90	126,737	17,318	158,794	40,085	37,046	14,095	146.8	74,387	12,472	123,135
Central of Georgia.....	2 mos. 90	284,257	33,432	350,983	70,449	78,738	29,992	66.5	415,467	57,032	624,466
Central of New Jersey.....	Feb. 1,815	2,688,831	233,803	3,423,814	443,774	504,751	109,802	92.4	1,947,933	1,254,413	1,402,347
Central of New Jersey.....	2 mos. 1,815	4,923,655	506,655	5,910,451	899,772	1,012,996	2,321,18	91.0	214,982	207,959	262,123
Central of New Jersey.....	Feb. 415	2,251,018	464,752	2,849,278	410,333	574,865	51,126	93.9	530,527	413,611	16,568
Central of New Jersey.....	2 mos. 415	4,835,992	990,758	6,248,038	886,346	1,221,331	103,635	95.1	306,863	378,576	463,377
Central of Pennsylvania.....	Feb. 212	1,315,349	15,930	1,359,810	131,738	293,351	22,992	66.5	415,467	57,032	624,466
Central of Pennsylvania.....	2 mos. 212	2,849,195	34,750	2,952,069	290,156	552,749	47,588	66.0	1,004,136	125,413	1,402,347
Central of Pennsylvania.....	Feb. 422	652,000	67,000	765,000	128,151	146,050	14,001	87.6	94,560	46,246	2,008
Chesapeake & Ohio.....	2 mos. 422	1,320,000	134,000	1,551,000	245,686	295,399	29,132	87.0	202,160	92,941	8,854
Chesapeake & Ohio.....	Feb. 5,098	22,516,964	661,270	24,001,628	3,460,071	4,598,925	550,350	75.7	5,840,129	2,917,140	2,389,016
Chicago & Eastern Illinois.....	2 mos. 5,098	46,650,451	1,618,345	50,116,936	9,288,445	12,066,445	18,174,294	75.9	12,063,707	6,096,680	6,693,804
Chicago & Eastern Illinois.....	Feb. 909	1,883,878	308,082	2,415,840	1,317,179	476,582	109,597	85.7	346,026	111,600	132,753
Chicago & Eastern Illinois.....	2 mos. 909	3,823,365	677,464	4,961,624	631,221	928,748	217,538	85.5	720,290	275,400	275,703
Chicago & Eastern Illinois.....	Feb. 131	730,135	834	749,801	88,118	141,171	23,901	65.2	260,681	108,071	144,331
Chicago & Eastern Illinois.....	2 mos. 131	1,485,619	1,656	1,525,508	175,956	293,178	56,458	67.1	502,203	205,997	272,326
Chicago & Eastern Illinois.....	Feb. 8,076	9,801,159	1,539,668	12,630,644	2,095,895	3,110,064	13,280,763	105.1	1,318,907	1,018,325	1,311,335
Chicago & Eastern Illinois.....	2 mos. 8,076	19,831,901	3,457,550	26,134,412	4,397,190	6,419,821	27,453,319	105.0	1,318,907	2,055,761	3,655,658
Chicago, Burlington & Quincy.....	Feb. 8,714	13,950,503	1,198,565	16,588,121	2,132,899	409,724	6,498,608	76.7	3,861,653	2,101,867	1,370,642
Chicago, Burlington & Quincy.....	2 mos. 8,714	27,417,704	2,659,288	33,118,309	4,595,928	6,404,281	12,726,168	76.7	3,861,653	2,101,867	1,370,642
Chicago, Burlington & Quincy.....	Feb. 1,500	2,409,290	48,489	2,625,890	396,515	329,413	1,095,738	75.5	644,465	210,067	254,201
Chicago, Burlington & Quincy.....	2 mos. 1,500	4,822,107	94,635	5,289,916	764,982	665,850	2,166,531	76.7	1,233,807	414,972	428,845
Chicago, Burlington & Quincy.....	Feb. 541	1,229,424	91,216	1,414,987	226,897	279,405	76,585	88.7	173,681	79,891	23,563
Chicago, Burlington & Quincy.....	2 mos. 541	2,500,996	201,700	2,886,314	477,575	536,534	1,189,239	88.1	314,610	138,666	56,272
Chicago, Milwaukee, St. Paul & Pacific.....	Feb. 10,670	15,187,583	1,278,188	17,985,998	2,579,030	3,924,743	8,941,360	92.9	1,268,638	1,336,000	598,795
Chicago, Milwaukee, St. Paul & Pacific.....	2 mos. 10,670	30,169,231	2,950,475	36,441,135	5,274,016	8,250,587	18,467,785	95.1	1,795,319	2,796,000	1,921,043
Chicago, Milwaukee, St. Paul & Pacific.....	Feb. 7,631	11,073,601	1,714,850	14,543,434	1,514,434	2,243,220	5,949,215	79.0	2,904,745	1,344,047	869,112
Chicago, Milwaukee, St. Paul & Pacific.....	2 mos. 7,631	22,201,030	3,830,528	28,193,975	3,133,363	4,377,012	12,162,791	76.2	6,130,359	2,812,211	1,968,765
Chicago, Milwaukee, St. Paul & Pacific.....	Feb. 1,617	2,049,884	154,625	2,374,519	302,397	472,323	1,336,004	96.2	89,854	178,791	164,089
Chicago, Milwaukee, St. Paul & Pacific.....	2 mos. 1,617	4,164,489	372,916	4,898,556	615,696	986,533	2,750,777	96.2	186,295	363,319	371,022
Clinchfield.....	Feb. 317	1,316,436	4,409	1,330,179	168,721	273,561	877,495	66.0	452,684	154,359	336,441
Colorado & Southern.....	2 mos. 317	2,726,886	8,935	2,757,625	353,318	573,879	1,861,416	67.5	896,209	311,340	1,023,060
Ft. Worth & Denver City.....	Feb. 745	1,587,138	70,624	1,638,983	101,196	187,938	454,614	78.7	221,440	73,026	107,983
Ft. Worth & Denver City.....	2 mos. 745	3,133,309	144,828	3,278,137	205,537	397,354	918,156	90.5	180,917	146,210	41,699
Ft. Worth & Denver City.....	Feb. 902	1,833,309	114,828	1,933,487	162,198	245,537	442,222	81.5	191,265	54,674	105,513
Ft. Worth & Denver City.....	2 mos. 902	3,671,520	2,098,092	5,769,612	327,275	361,512	869,430	85.4	306,374	113,087	126,431

Table continued on next left-hand page

Railway Age—April 16, 1919



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ESSO STANDARD OIL COMPANY OF PENNSYLVANIA—Philadelphia, Pa.

REVENUES AND EXPENSES OF RAILWAYS

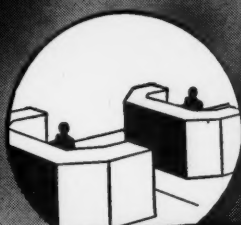
MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1949

Name of road	Av. mileage operated during period	Operating revenues				Operating Expenses				Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Way and structures	Maintenance of equip-	Traffic	Trans- portation	Total			Railway tax accruals	1949
Colorado & Wyoming	Feb. 41	140,411	230,383	370,794	13,934	25,690	1,048	88,122	137,568	59.7	92,815	46,472	46,596
	2 mos.	276,421	461,099	737,520	27,968	47,101	1,619	178,144	268,170	58.1	189,072	98,647	90,691
Columbus & Greenville	Feb. 168	145,161	36,505	181,666	36,505	24,679	4,446	41,140	123,556	81.9	27,669	13,721	17,073
	2 mos.	299,380	72,014	371,394	72,014	49,348	8,891	88,227	254,595	81.6	57,499	32,493	30,994
Delaware & Hudson	Feb. 794	3,942,170	172,974	4,115,144	567,908	815,463	69,140	1,762,096	3,900,936	80.5	822,119	436,075	376,513
	2 mos.	7,914,419	394,182	8,308,601	1,134,565	2,025,292	142,173	3,628,296	7,288,166	85.6	1,227,643	701,642	513,958
Delaware, Lackawanna & Western	Feb. 969	4,989,279	779,605	5,768,884	765,705	1,175,296	150,506	2,911,249	5,226,141	83.3	1,047,915	552,009	447,325
	2 mos.	10,519,883	1,686,227	12,206,110	1,597,941	2,450,332	304,097	6,181,961	11,002,131	83.1	2,242,357	1,201,074	981,756
Denver & Rio Grande Western	Feb. 2,443	5,359,430	262,985	5,622,415	599,537	1,015,602	145,865	2,260,511	4,283,431	70.9	1,760,669	737,743	921,151
	2 mos.	10,009,462	534,995	10,544,457	1,168,552	2,041,767	294,734	4,388,698	8,430,180	75.2	2,780,001	1,232,602	1,464,030
Detroit & Mackinac	Feb. 232	128,685	707	129,392	141,628	23,736	1,588	29,900	93,632	66.1	47,996	19,392	30,516
	2 mos.	255,856	1,563	257,419	280,344	46,375	3,497	63,359	189,631	67.6	90,713	37,349	55,916
Detroit & Toledo Shore Line	Feb. 50	578,737	.....	578,737	582,161	37,617	12,828	167,259	268,854	46.2	313,307	100,924	121,087
	2 mos.	1,198,733	.....	1,198,733	1,204,723	73,682	25,305	352,830	543,426	46.6	643,426	208,832	255,159
Detroit, Toledo & Ironton	Feb. 464	1,561,509	560	1,562,069	1,604,297	150,511	23,500	223,757	791,129	49.3	813,177	315,394	434,369
	2 mos.	3,145,962	1,105	3,147,067	3,228,527	297,913	47,519	724,568	1,561,856	48.4	1,666,671	652,368	898,999
Duluth, Missabe & Iron Range	Feb. 575	292,789	1,628	294,417	530,678	472,412	7,459	41,431	1,544,650	468.2	-1,214,743	73,725	-1,304,174
	2 mos.	437,249	3,693	440,942	1,263,916	940,874	15,844	923,423	3,272,559	635.4	-2,757,543	143,191	-2,946,068
Duluth, Winnipeg & Pacific	Feb. 175	303,000	1,200	304,200	61,226	45,617	4,109	143,567	260,369	84.6	47,231	24,539	56,133
	2 mos.	584,000	2,300	586,300	104,562	87,344	8,413	288,314	507,224	85.3	87,476	48,283	20,864
Elgin, Joliet & Eastern	Feb. 238	3,245,877	560	3,246,437	3,869,793	548,189	28,191	1,361,438	2,275,030	58.8	1,594,763	561,743	676,640
	2 mos.	6,754,777	1,105	6,755,882	7,964,848	1,104,400	55,489	2,785,005	4,696,776	59.0	3,268,072	1,215,384	1,390,417
Erte	Feb. 2,229	10,634,199	558,082	11,192,281	1,299,524	2,240,575	296,354	5,158,818	6,605,866	80.6	2,307,181	1,031,900	935,422
	2 mos.	22,259,209	1,208,534	24,035,378	2,709,201	4,636,072	615,715	10,825,718	20,032,814	80.3	4,902,564	2,259,433	1,981,426
Florida East Coast	Feb. 575	1,724,135	960,286	2,684,421	339,492	408,532	63,206	1,013,348	2,026,667	69.1	908,256	256,517	530,915
	2 mos.	3,437,926	1,892,560	5,330,486	673,775	846,343	131,287	2,102,339	4,240,691	72.6	1,590,680	419,129	931,751
Georgia Railroad	Feb. 326	556,229	29,000	585,229	100,606	95,627	29,412	315,322	572,876	92.4	47,104	34,646	22,952
	2 mos.	1,198,362	69,607	1,267,969	207,651	200,853	59,098	668,261	1,198,270	89.0	148,112	70,942	107,800
Georgia & Florida	Feb. 408	206,817	56	206,873	85,330	35,988	93,099	32,515	242,515	115.9	-33,366	15,799	-65,329
	2 mos.	446,166	852	447,018	175,442	175,442	31,026	202,474	503,943	111.0	-49,826	32,129	-114,412
Grand Trunk Western	Feb. 971	3,264,000	181,000	3,445,000	556,037	658,065	59,675	1,685,441	3,100,363	83.4	618,637	236,770	253,739
	2 mos.	6,448,000	359,000	6,807,000	1,124,770	1,481,397	123,754	3,359,916	6,259,257	87.5	940,743	482,606	260,051
Canadian Natl. Lines in New Engl.	Feb. 172	155,000	6,000	161,000	168,000	72,172	2,831	121,945	247,960	147.6	-79,960	22,576	-133,352
	2 mos.	319,000	14,500	333,500	336,000	148,344	5,681	246,467	497,750	139.0	-139,750	45,152	-246,608
Great Northern	Feb. 8,318	10,459,357	726,692	11,186,049	12,006,309	2,704,347	320,243	6,294,409	12,863,071	105.4	-656,762	1,331,425	-2,346,546
	2 mos.	21,543,040	1,685,129	23,228,169	25,297,857	5,495,976	639,943	12,883,162	26,265,683	103.8	-967,826	2,536,394	-4,185,365
Green Bay & Western	Feb. 224	274,460	17	274,477	283,313	51,164	17,025	97,111	207,978	73.4	75,335	28,425	32,443
	2 mos.	547,603	41	547,644	567,942	60,495	36,892	197,434	434,031	76.4	133,911	67,771	36,034
Gulf, Mobile & Ohio	Feb. 2,901	5,133,289	414,464	5,547,753	1,024,294	1,068,739	229,795	1,949,825	4,574,779	79.9	1,371,622	551,397	536,185
	2 mos.	10,505,871	965,878	11,471,749	2,117,615	2,137,740	467,636	4,137,507	9,478,501	76.9	2,854,853	1,137,070	1,103,645
Illinois Central	Feb. 6,552	16,277,115	1,932,882	18,210,000	3,049,811	3,558,081	437,789	7,777,896	15,718,708	77.2	4,495,791	2,349,027	1,922,203
	2 mos.	33,283,884	4,058,155	37,342,039	6,315,404	7,385,746	904,289	16,058,960	32,525,898	78.5	8,923,399	4,678,754	3,787,624
Illinois Terminal	Feb. 474	742,135	107,229	849,364	935,772	138,978	35,328	377,249	727,074	77.7	208,698	103,916	102,016
	2 mos.	1,522,681	222,492	1,745,173	1,953,818	280,765	71,763	792,198	1,510,243	77.3	443,575	221,023	216,780
Kansas City Southern	Feb. 891	2,822,628	79,752	2,902,380	2,844,404	367,427	90,686	866,428	1,726,741	55.5	1,382,812	510,000	720,285
	2 mos.	5,997,111	180,066	6,177,177	6,133,968	586,443	184,624	1,864,488	3,637,573	55.0	2,976,395	1,050,000	1,591,721
Kansas, Oklahoma & Gulf	Feb. 328	445,185	807	446,000	445,962	37,785	17,272	124,424	245,042	54.6	203,920	89,294	81,621
	2 mos.	970,415	1,589	971,994	980,140	87,932	35,994	266,018	509,620	52.0	470,520	201,172	194,810
Lake Superior & Ishpeming	Feb. 156	50,151	38	50,189	53,570	34,045	1,701	41,240	140,441	266.2	-86,871	22,460	-104,876
	2 mos.	100,441	82	100,523	107,199	68,860	3,459	84,137	286,044	266.8	-178,845	46,129	-189,290
Lehigh & Hudson River	Feb. 96	211,715	.....	211,715	212,428	31,679	9,234	87,657	165,518	77.9	46,910	20,372	9,991
	2 mos.	468,327	.....	468,327	469,883	59,011	18,672	189,170	264,203	77.5	105,680	44,288	22,039
Lehigh & New England	Feb. 191	432,829	.....	432,829	438,465	74,007	11,305	152,939	373,059	85.1	65,406	47,210	47,346
	2 mos.	978,528	.....	978,528	990,668	161,882	22,141	328,039	797,271	80.5	193,397	116,738	126,442
Lehigh Valley	Feb. 1,252	4,961,950	299,645	5,261,595	5,549,277	907,660	141,446	2,532,723	4,517,732	81.4	1,031,545	411,564	428,359
	2 mos.	10,264,391	556,671	10,821,062	11,559,480	1,874,660	287,098	5,406,247	9,596,433	83.0	1,963,047	841,170	760,157
Louisiana & Arkansas	Feb. 756	1,273,624	55,264	1,328,888	1,385,150	160,525	48,221	912,508	1,726,741	65.9	472,642	190,915	224,042
	2 mos.	2,692,226	121,225	2,813,451	2,928,356	357,171	98,225	1,942,642	3,637,573	66.3	985,714	375,915	417,597
Louisville & Nashville	Feb. 4,775	13,274,688	1,096,826	14,371,514	15,165,779	2,179,709	302,169	6,277,219	12,604,104	83.3	2,525,675	1,634,674	1,298,035
	2 mos.	27,231,978	2,464,758	29,696,736	31,570,966	4,418,981	615,288	13,319,015	26,421,751	83.7	5,149,215	3,401,255	2,657,814

Table continued on second left-hand page

Railway Age—April 16, 1949

SALT
LAKE



SALT LAKE CITY

WYOMING

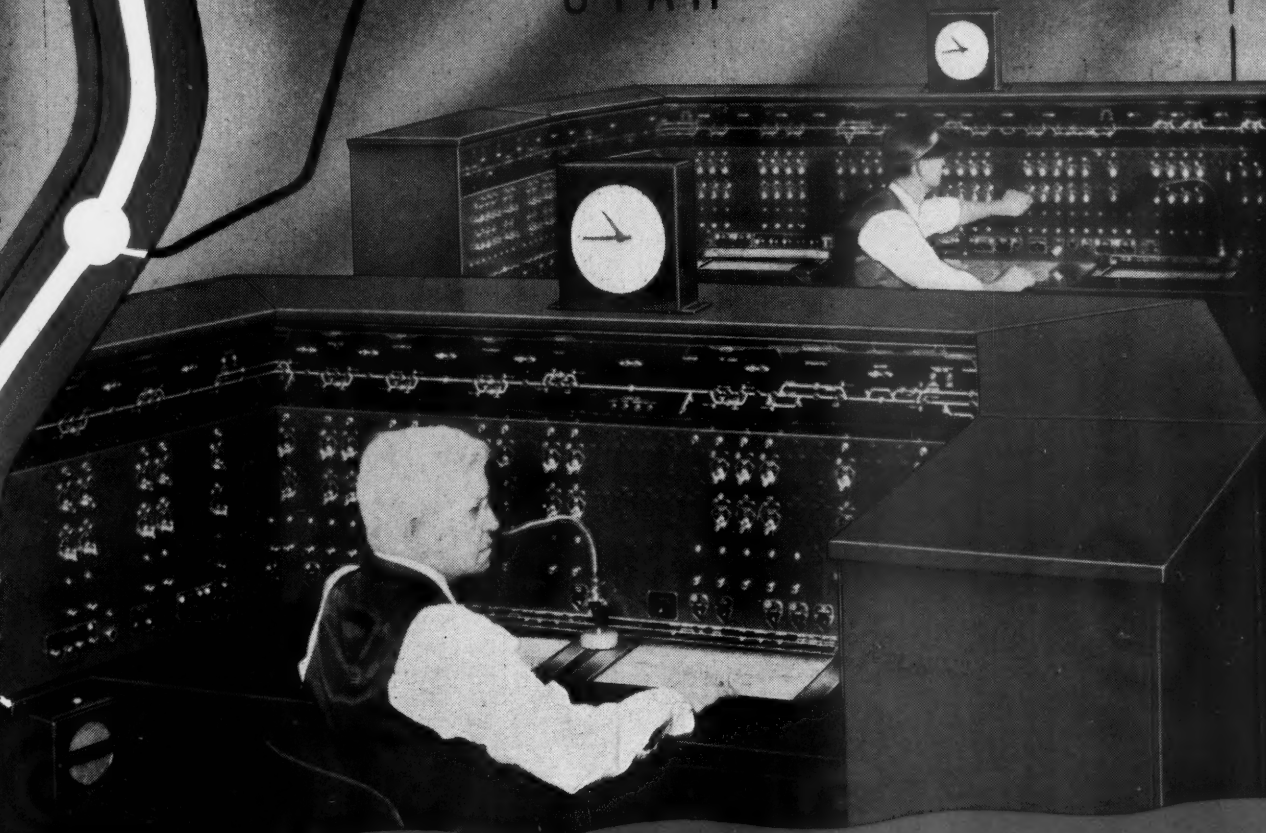


UTAH

COLORADO

LYNDYL

325 Miles



UNION SWITCH & SIGNAL COMPANY

SWISSVALE



PENNSYLVANIA

NEW YORK CHICAGO

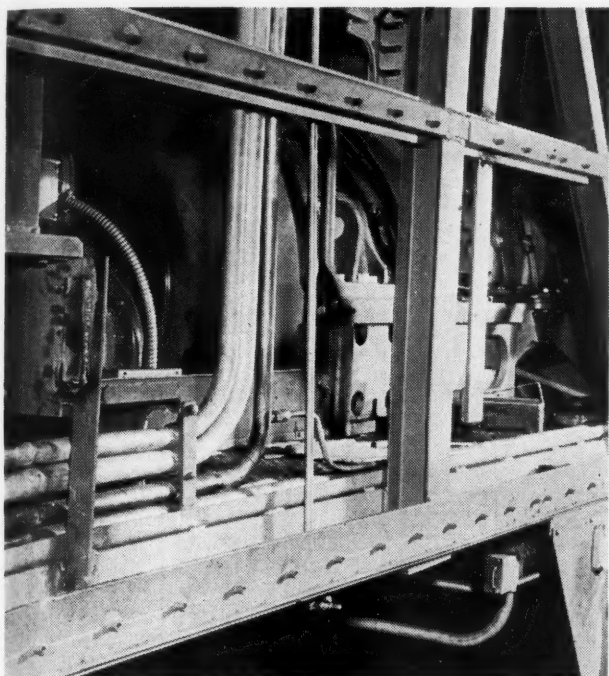
ST. LOUIS SAN FRANCISCO

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1949

Name of road	Av. mileage operated during period	Operating revenues			Operating Expenses			Operating ratio	Net from railway operation	Net railway operating income				
		Freight	Passenger	Total (inc. misc.)	Way and structures	Maintenance of Equip-ment	Traffic			Trans- portation	Total	Railway tax accruals	1949	1948
Maine Central.....	981	1,937,585	137,141	2,074,726	4,182,249	420,960	19,306	800,473	1,635,092	75.0	544,025	246,805	204,031	153,922
2 mos.	981	3,977,846	278,006	4,255,852	8,364,498	841,920	38,612	1,598,946	3,176,418	71.4	1,088,050	493,610	512,725	399,935
Feb.	981	1,937,585	137,141	2,074,726	4,182,249	420,960	19,306	800,473	1,635,092	75.0	544,025	246,805	204,031	153,922
Midland Valley.....	334	148,817	7	151,664	652,977	12,336	3,517	106,650	2,193,451	70.0	45,462	47,352	17,966	25,100
2 mos.	334	306,010	21	312,724	61,985	27,715	7,616	106,650	2,193,451	69.6	95,205	97,352	28,156	53,528
Feb.	334	148,817	7	151,664	652,977	12,336	3,517	106,650	2,193,451	70.0	45,462	47,352	17,966	25,100
Minneapolis & St. Louis.....	1,421	1,441,533	7,107	1,448,640	249,218	236,329	101,903	1,100,679	1,219,630	81.9	270,068	163,834	93,663	110,074
2 mos.	1,421	2,919,967	20,648	3,020,615	511,837	485,717	206,731	1,100,679	2,429,360	81.9	546,545	303,601	215,742	201,138
Feb.	1,421	1,441,533	7,107	1,448,640	249,218	236,329	101,903	1,100,679	1,219,630	81.9	270,068	163,834	93,663	110,074
Minn., St. Paul & S. Ste. Marie.....	3,224	1,725,703	78,307	1,804,010	540,574	511,506	61,147	1,111,565	2,329,244	119.8	385,025	174,747	618,978	554,979
2 mos.	3,224	3,451,406	156,614	3,608,020	1,081,148	1,023,012	122,291	2,223,157	4,651,405	115.9	771,041	349,494	1,143,178	951,545
Feb.	3,224	1,725,703	78,307	1,804,010	540,574	511,506	61,147	1,111,565	2,329,244	119.8	385,025	174,747	618,978	554,979
Duluth, South Shore & Atlantic.....	530	416,048	7,583	423,631	90,127	95,707	18,494	215,029	430,471	98.1	8,201	22,746	29,708	9,216
2 mos.	530	832,096	15,166	847,262	180,254	191,414	36,988	430,058	860,942	103.5	16,402	45,492	60,337	28,636
Feb.	530	416,048	7,583	423,631	90,127	95,707	18,494	215,029	430,471	98.1	8,201	22,746	29,708	9,216
Spokane International.....	152	97,966	1,268	99,234	45,746	16,777	3,817	59,495	133,861	119.6	21,968	9,712	41,102	4,051
2 mos.	152	195,932	2,536	198,468	91,492	33,554	7,634	118,990	267,712	122.1	43,936	22,482	97,267	4,051
Feb.	152	97,966	1,268	99,234	45,746	16,777	3,817	59,495	133,861	119.6	21,968	9,712	41,102	4,051
Mississippi Central.....	148	184,131	8	188,027	44,814	20,860	12,465	50,277	137,400	73.1	50,627	20,456	15,751	12,533
2 mos.	148	368,262	16	368,278	89,628	41,720	24,930	100,554	274,800	72.2	101,254	40,912	30,737	35,790
Feb.	148	184,131	8	188,027	44,814	20,860	12,465	50,277	137,400	73.1	50,627	20,456	15,751	12,533
Missouri-Illinois.....	172	547,092	430	547,522	54,030	48,063	6,712	95,103	208,450	59.8	140,071	62,253	73,553	73,653
2 mos.	172	1,094,184	860	1,095,044	108,060	96,126	13,424	190,206	416,900	58.3	280,142	124,506	155,754	155,754
Feb.	172	547,092	430	547,522	54,030	48,063	6,712	95,103	208,450	59.8	140,071	62,253	73,553	73,653
Missouri-Kansas-Texas Lines.....	3,253	5,316,881	3,502,249	8,819,130	1,795,272	1,796,021	467,197	5,333,609	9,971,254	79.6	1,409,399	528,151	411,474	313,131
2 mos.	3,253	10,633,762	7,004,498	17,638,260	3,590,544	3,592,042	934,394	10,667,218	19,942,508	79.6	2,818,798	1,056,302	640,541	640,541
Feb.	3,253	5,316,881	3,502,249	8,819,130	1,795,272	1,796,021	467,197	5,333,609	9,971,254	79.6	1,409,399	528,151	411,474	313,131
Missouri Pacific.....	7,007	13,894,772	912,583	14,807,355	2,203,990	2,761,712	410,529	6,749,040	12,693,428	78.6	3,464,842	1,165,320	1,713,108	812,369
2 mos.	7,007	27,789,444	1,825,166	29,614,610	4,407,980	5,523,424	821,058	13,498,080	25,416,852	79.7	6,929,684	2,330,640	3,426,216	2,330,640
Feb.	7,007	13,894,772	912,583	14,807,355	2,203,990	2,761,712	410,529	6,749,040	12,693,428	78.6	3,464,842	1,165,320	1,713,108	812,369
Gulf Coast Lines.....	1,717	3,017,741	107,699	3,125,440	554,684	395,311	79,136	1,127,436	2,260,160	69.8	990,768	253,312	516,309	826,777
2 mos.	1,717	6,035,482	215,398	6,250,880	1,109,368	790,622	158,272	2,254,872	4,520,320	67.1	2,333,250	652,720	1,116,455	1,522,281
Feb.	1,717	3,017,741	107,699	3,125,440	554,684	395,311	79,136	1,127,436	2,260,160	69.8	990,768	253,312	516,309	826,777
International Great-Northern.....	1,110	1,943,188	155,203	2,098,391	427,446	395,364	106,453	1,068,463	2,041,613	87.0	306,355	110,062	68,389	2,471
2 mos.	1,110	3,886,376	310,406	4,196,782	854,892	790,728	212,906	2,136,926	4,082,540	84.5	793,851	228,378	279,039	202,083
Feb.	1,110	1,943,188	155,203	2,098,391	427,446	395,364	106,453	1,068,463	2,041,613	87.0	306,355	110,062	68,389	2,471
Monongahela.....	170	631,837	978	632,815	84,202	66,631	970	215,542	371,746	58.4	264,695	92,606	49,054	117,941
2 mos.	170	1,263,674	1,956	1,265,630	168,404	133,262	1,940	431,084	743,488	56.4	589,288	184,967	140,753	231,140
Feb.	170	631,837	978	632,815	84,202	66,631	970	215,542	371,746	58.4	264,695	92,606	49,054	117,941
Montour.....	51	210,166	.....	210,166	38,547	35,061	1,706	106,809	304,148	81.8	35,277	17,875	22,387	71,864
2 mos.	51	420,332	.....	420,332	77,094	70,122	3,412	213,618	608,296	81.0	70,554	35,750	44,637	137,305
Feb.	51	210,166	.....	210,166	38,547	35,061	1,706	106,809	304,148	81.8	35,277	17,875	22,387	71,864
Nashville, Chatt. & St. Louis.....	1,051	2,113,346	189,212	2,302,558	469,425	38,547	104,730	1,081,185	2,041,960	81.0	478,989	271,875	224,387	137,404
2 mos.	1,051	4,226,692	378,424	4,605,116	938,850	77,094	209,460	2,172,370	4,186,312	79.7	1,064,384	570,129	500,057	345,211
Feb.	1,051	2,113,346	189,212	2,302,558	469,425	38,547	104,730	1,081,185	2,041,960	81.0	478,989	271,875	224,387	137,404
New York Central.....	10,731	42,909,263	9,126,812	52,036,075	6,523,392	10,987,703	1,049,622	26,638,960	48,763,742	84.8	8,752,954	4,201,824	3,073,945	2,624,385
2 mos.	10,731	85,818,526	18,253,624	104,072,150	13,046,784	21,975,406	2,099,244	53,277,920	97,539,682	83.8	16,862,552	8,403,648	5,147,883	4,985,735
Feb.	10,731	42,909,263	9,126,812	52,036,075	6,523,392	10,987,703	1,049,622	26,638,960	48,763,742	84.8	8,752,954	4,201,824	3,073,945	2,624,385
Pittsburgh & Lake Erie.....	221	3,325,660	80,757	3,406,417	403,824	1,085,228	62,638	2,253,324	3,338,652	81.2	1,414,044	562,824	384,403	584,403
2 mos.	221	6,651,320	161,514	6,812,834	807,648	2,170,456	125,276	4,506,648	6,679,304	81.2	2,828,088	1,125,648	768,806	1,148,265
Feb.	221	3,325,660	80,757	3,406,417	403,824	1,085,228	62,638	2,253,324	3,338,652	81.2	1,414,044	562,824	384,403	584,403
New York, Chicago & St. Louis.....	1,687	7,942,910	103,634	8,046,544	1,062,091	2,220,141	221,430	2,930,571	5,153,326	69.3	2,535,261	1,033,921	1,197,067	1,996,939
2 mos.	1,687	15,885,820	207,268	16,093,088	2,124,182	4,440,282	442,860	5,861,142	10,306,652	69.3	5,070,522	2,067,842	2,394,134	3,197,877
Feb.	1,687	7,942,910	103,634	8,046,544	1,062,091	2,220,141	221,430	2,930,571	5,153,326	69.3	2,535,261	1,033,921	1,197,067	1,996,939
New York, New Haven & Hartford.....	1,798	6,223,520	3,917,354	10,140,874	1,670,808	1,765,805	227,967	5,107,956	9,569,683	81.4	2,186,515	947,000	487,509	1,039,594
2 mos.	1,798	12,447,040	7,834,708	20,281,748	3,341,616	3,531,610	455,934	10,215,912	19,131,393	81.0	4,373,026	1,894,000	1,178,427	2,187,100
Feb.	1,798													

Take this Cost-Saving Tool to the Work!

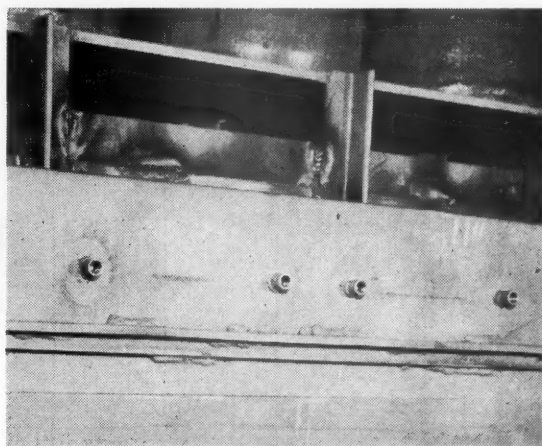
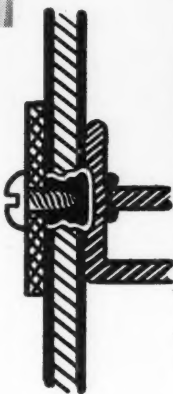


NELSON

Stud Welding

SPEEDS INSTALLATION OF SIDE PANELS ON DIESEL LOCOMOTIVES

Have you ever felt there must be a better way to fasten side panels on Diesel locomotives . . . a method that would eliminate paint chipping—make fasteners shake-proof and panels easily removable—plus making it as "simple as Simon" to handle repairs in your shops without the need for a midget contortionist? If so, the Nelson method of fastening will be welcome news!



The process is as simple as pressing a trigger on the stud welding gun which welds female studs within a fraction of an inch of obstacles such as channels and frame members. Since all work is done from one side, there need be no concern at all about clearances on the opposite side of the channels. And, what's more, your present fastening system can be changed to the Nelson method in less time than is required to replace a few inaccessible fasteners.

Numerous installations by manufacturers of Diesel locomotives, some of which have many years' service, have proved the soundness of this type of fastener for use under severe operating conditions. Panel manufacturers approve its use.

The Nelson Stud Welder is not confined to side panel uses, nor to locomotives. It is a fast, dependable means of end welding studs from small pins for holding insulation to studs $\frac{3}{4}$ " in diameter—on box, refrigerator, caboose and special purpose cars. There are uses for Nelson fasteners wherever steel, wood, hardboards, or insulation are fastened to steel.

A Nelson field engineer will gladly assist in a thorough investigation of stud welding applications on your equipment. Write, wire or 'phone the Nelson office nearest your shops or our general offices at Lorain, Ohio, for our representative to call.



● Be sure your key people are fully acquainted with the cost-saving possibilities of Nelson Stud Welding. Write for this informative new catalog today.

NELSON STUD WELDING

Division of Morton Gregory Corporation
2771 Toledo Avenue Lorain, Ohio



MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1949

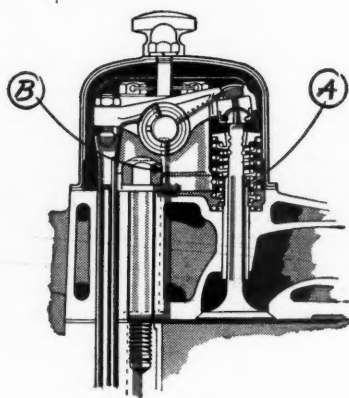
22

Wheeling & Lake Erie.....	2 mos. Feb.
Wisconsin Central.....	2 mos. Feb.

STANDARD ENGINEER'S CASE FILE



Case D119C—Providing Good Valve Action in Diesel Engines



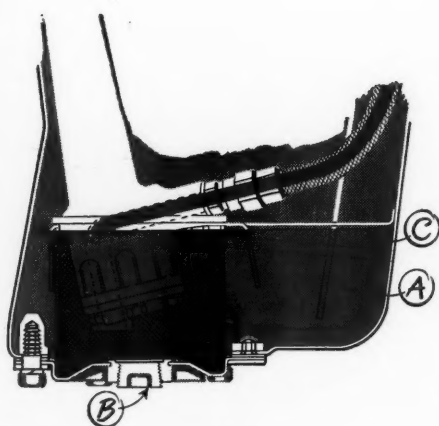
DIESEL ENGINE VALVE ASSEMBLY

When Diesel engines, operating in tough heavy-duty service, were lubricated with compounded RPM DELO Diesel Engine Lubricating Oil, valve stems and guides did not gum up. They received thorough lubrication at all times and wear was negligible. RPM DELO Oil is recommended for all types of Diesels. Comes in several viscosity grades to meet all conditions.

- A. Specially selected oxidation-resistant base stocks and special compounds prevent formation of gum and lacquer...oil film adheres to hot or cold metal surfaces.
- B. Detergent compound keeps oil passages clean and open...and allows free flow of adequate supply of lubricant to wear points.

RPM DELO Diesel Engine Lubricating Oil is non-corrosive to all bearing metals. This quality and high stability assure sound bearings in Diesels for long service periods.

Case D119D—Keeping Diesel Engine Parts Clean



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Cylinder walls, pistons, bearings and other parts of Diesel engines in heavy-duty service remained free of lacquer, and all contaminants flowed out with drainings when RPM DELO Diesel Engine Lubricating Oil was used.

- A. A special compound in RPM DELO Oil loosens and removes lacquer and other deposits from parts and oil passages...and they stay harmlessly dispersed in the oil.
- B. The finely dispersed contaminants, including condensate and dust, flow out freely when crankcases are drained.
- C. Another compound in RPM DELO Oil prevents foaming—allows accurate measurement of oil levels and delivery of sufficient lubricant by oil pumps.

The engine-cleaning qualities of RPM DELO Oil help reduce wear on parts and prolong greatly the operating periods between engine overhauls.

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THE NEW YORK CENTRAL RAILROAD COMPANY

Excerpts From Annual Report • 1948

The Year in Review

THE YEAR 1948 produced a much higher degree of prosperity for the nation and for business in general than for the railroads.

Though the New York Central gained substantially over 1947 in total revenues and net income, there are disquieting factors which also must be noted in any realistic appraisal of the year's results:

1—Unit volume was down. Thus the improved financial showing was due largely to increases in rates and fares.

2—Heavy increases continued in basic wage, material and fuel costs—factors beyond any management's control.

3—Large sums of money have been and still are needed to continue our post-war plant and equipment modernization, which is vital to the long-range interests of the Central, its owners and employees, and the public.

4—Our profit was inadequate, in relation both to our gross revenues and to our invested capital.

Revenues up, but volume down

Due to the freight rate and passenger fare increases during 1948, total operating revenues increased to \$779,860,755, up 10.9 per cent from 1947.

Our improved revenues came largely from our freight traffic. Totalling \$561,361,243, freight revenues improved 13 per cent from the previous high, of 1947, though unit volume as measured by revenue ton-miles fell 4 per cent below 1947, and 24 per cent below the record of wartime 1943.

While travel volume continued its post-war decline, passenger revenues increased to \$136,168,197—up 2.2 per cent from 1947, but 25 per cent below record 1944. Revenue passenger-miles fell 9 per cent below 1947, with coach traffic falling more than Pullman traffic.

Expenses at all-time high

Total operating expenses rose to \$667,342,966, up 10 per cent from the previous year. This was despite the lower traffic volume of 1948, and was due to climbing wage rates and larger unit costs of materials and supplies.

As a result our profit, though substantially improved from 1947, still was disappointing for a year in which our total traffic volume was greater than in any other peacetime year except 1947. The rate of return on our depreciated railroad property investment was only 2.1 per cent.

Net income improves

Net income totaled \$14,727,096, equal to \$2.28 a share, compared with \$2,306,082 or 36 cents a share in 1947. Except for the "profitless prosperity" period of 1946-47, when rate increases lagged far behind soaring costs, this was our lowest net income since 1940. It represented a profit of only 1.8 cents of every dollar we received both from railroad operations and in other income.

From this relatively small profit, the Central's directors declared a 50 cents a share dividend, the first in three years, payable January 15, 1949, to stockholders of record December 22, 1948. The necessity of financing the major improvement program which still is under way precluded the consideration of any larger payment.

Modernization continues

Our improvement program has required us to draw heavily on cash reserves accumulated in the war years, as well as current earnings. It is expensive—especially in these years of high prices.

Yet we cannot stand still. Continuing modernization offers the principal hope for reducing the ratio of operating costs to revenue and thus of improving our earning power and

the value of Central stock. Continuing modernization likewise is the only way we can maintain our service at the standards which are vital in this period of intense competition.

Debt interest increase moderate

In carrying forward the improvement program, the Central issued last year \$39,200,000 of new equipment trust certificates bearing low interest rates and maturing serially in one to ten years. As is well known, these represent short term obligations to temporarily finance in part the acquisition of new locomotives, freight cars and other equipment. Amounts due New York State in connection with grade crossing eliminations decreased by \$502,227. Meanwhile \$15,790,280 of older debt, including that of lessor companies, was retired, at maturity or by purchase.

As a result, while total debt held by the public increased \$22,907,493, or 2.68 per cent, interest requirements, on an annual basis, increased by a relatively moderate \$600,592, or only 1.84 per cent.

As against this increase, leased line rentals payable to others will be reduced \$110,301 on an annual basis by means of 1948 expenditures totaling \$1,828,059 for the acquisition of lessor companies' stock guaranteed by the Central.

The rate and cost picture

Freight rate increases authorized by the Interstate Commerce Commission were made effective on various dates during 1948, and there also were increases in passenger fares and express rates. Even so, the situation confronting the eastern railroads, as compared with 1939, is as follows:

Passenger fare levels have increased an average of 24 per cent, and freight rate levels an average of 56 per cent, while the wage rates we must meet have gone up about 82 per cent and the prices we must pay for materials have increased an average of about 121 per cent.

Thus the increase in average wage rates and materials prices we must pay has far outdistanced the increase in the prices we are permitted to charge for our service. From these and other figures it is apparent that the railroads as a whole have not participated appreciably in the general prosperity.

Faith in the future

Under present-day conditions any comment as to what is ahead of us is largely conjectural. However, such forecasts as are available indicate that freight traffic volume will be somewhat below the level of 1948, and that a further decline in passenger traffic volume is indicated.

Whatever the future, we know that railroad transportation is a major factor affecting the nation's economy, and indispensable to national defense. For this and other important reasons, the major improvement program inaugurated in 1945 is imperative and must be carried forward.

To realize fully the benefits of this program, we will continue to need and appreciate the same close cooperation from our employees that they demonstrated again during 1948.

We face the future with faith that, in the national interest, enlightened public policy eventually will accord the railroad industry the equitable treatment essential to the preservation of its financial integrity and its standards of service.

G. METZMAN,
President

March 10, 1949

For copy of Annual Report containing Comparative Income Account, Balance Sheet, etc., address Public Relations Dept., New York Central System, 466 Lexington Avenue, New York 17, N. Y.

GENERAL NEWS

(Continued from page 81)

February Truck Traffic

Motor carriers reporting to American Trucking Associations transported in February a total of 2,569,712 tons of freight, a decrease of 4 per cent below the previous month's total of 2,675,482 tons, and 0.5 per cent below the 2,581,592 tons hauled in February, 1948. The figures, according to A.T.A., are based on comparable reports from 303 carriers in 43 states.

Correction—G. N. Gantry Crane

The caption on page 45 of the April 2 issue of *Railway Age* erroneously identified the Northern Pacific as co-owner of the 25-ton gantry crane recently placed in service at King street, Seattle, Wash. The crane is owned solely by the Great Northern.

RR "Y" Membership Up 3,842

The 1948 continental membership campaign of the Railroad Young Men's Christian Associations increased the number of dues-paying members to 134,893, compared with 131,051 in 1947. R. V. Fletcher, committee chairman and special counsel of the Association of American Railroads, has announced. In a report to campaign workers, Judge

Fletcher also stated that "efforts to secure additional funds for the improvement and extension of the work of the transportation department, while in some respects disappointing, have been going forward with a fair prospect of our securing a fund over the next three years of about \$100,000"

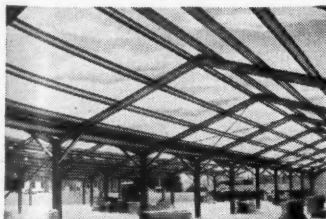
March Employment

Railroad employment decreased 2.95 per cent—from 1,231,612 to 1,195,289—from mid-February to mid-March, and the mid-March total was 9.2 per cent below that of March, 1948, according to the preliminary summary prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The index number, based on the 1935-1939 average, was 120.1 for March, as compared with 123.7 for February and 132.3 for March, 1948.

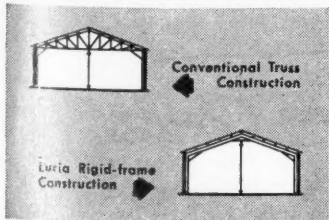
March employment was below that of the previous month in all groups, the decreases ranging from 0.54 in transportation (other than train, engine, and yard) to 4.63 per cent in maintenance of equipment and stores group. As compared with March, 1948, employment in the executives, officials, and staff assistants group was up 0.14 per cent, but all other groups showed decreases, ranging from 4.53 in the professional, clerical and general group to 11.41 per cent in the transportation (train and engine service) group.



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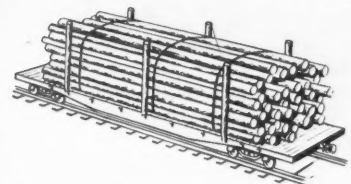
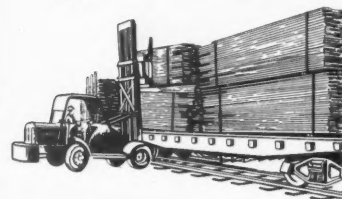
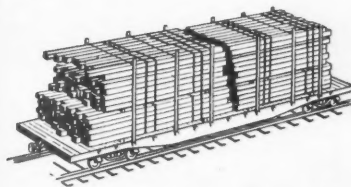
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Current Publications

PAMPHLETS

British Transport Directory of Officials. 40 pages. Published by the Railway Gazette, 33 Tothill st., Westminster, London, S.W.1, England. Price, one shilling.

Issued as a supplement to the Railway Gazette of January 14, 1949, this booklet contains a list of the members of the Ministry of Transport, the British Transport Commission, the Railway Executive, the London Transport Executive, the Road Transport Executive, the Docks and Inland Waterways Executive, and the Hotels Executive, together with their principal officers and their addresses.

The Organization of British Transport, by Sir Cyril Hurcomb. 25 pages. Published by the British Transport Commission, 55 Broadway, London, S.W.1, England. Free.

This outline of the organization of British Transport first describes the various parts of the Transport Act. Following this it outlines the organization of the British Transport Commission and the Executives (Railway, Road Transport, Docks and Inland Waterways, Hotels and London Transport) which are the agents of the Commission. In conclusion, it discusses problems of integration, rates, unification and physical development, staff relations and morale, and the progress being made in meeting these problems.

Cement and Concrete Reference Book, 1948. 87 pages. Published by the Portland Cement Association, 33 West Grand ave., Chicago 10. Free.

A compilation of interesting facts about the history, manufacture and uses of portland cement and concrete, this booklet includes articles, tables and charts on the portland cement industry; structural, conservation and farm uses of concrete; cement and concrete in transportation; concrete products and special uses of cement; and a list of Portland Cement Association member companies.

On a Fast Train Through Arkansas; A Rebuke to Jackson's "Slow Train," by Karr Shannon. 96 pages, illustrations. Copies available from Mooshian Enterprises, 4701 North Lookout ave., Little Rock, Ark.

Mr. Shannon's little book is a spirited refutation of the stereotyped humor which has been applied to slow trains, especially in Arkansas, by giving facts both about the state of Arkansas and about the fine railroad service it enjoys.

The Human Side of Railroading, by Carlton J. Corliss. 16 pages, illustrations. Published by the Association of American Railroads, Transportation Building, Washington 6, D. C. Free.

"What imparts life and energy to the railroads is the great army of men and women who comprise the railway organization." This little booklet, just re-issued

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and brought up to date, discusses this "Human Side of Railroadings." It includes brief outlines of the various departments under which a railroad is organized, and short summaries on government regulation, railroad labor unions, the railroad payroll, and opportunities in the railway field. A partial list of railroad occupations is included.

1949 Directory of Occupational Safety Posters. 72 pages. Published by the National Safety Council, 20 N. Wacker drive, Chicago 6. 50 cents.

Contains 744 illustrations of two, three and four-color posters, classified under 15 subjects. A convenient index that quickly locates posters on specific accident hazards is included. Posters range in size from 8½ by 11½ in. to 1½ by 12 ft.

Lima-Hamilton — Its Historical Past: 1869-1945 — and Later, by John E. Dixon. 40 pages, illustrations. Address delivered at dinner of the Newcomen Society of England, Hotel Pierre, New York, December 2, 1948. Printed at Princeton University Press, Princeton, N. J.

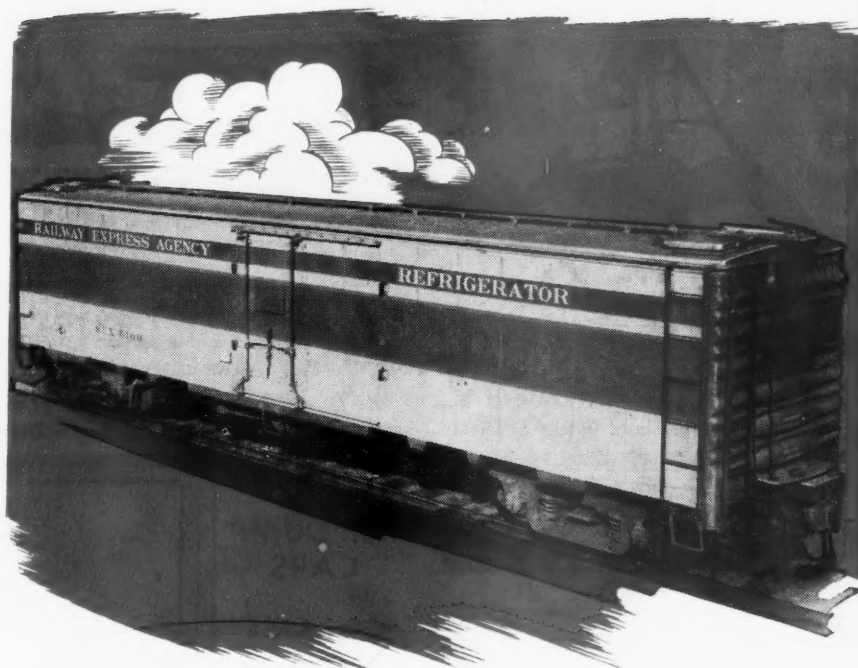
An interesting account of the history of Lima-Hamilton's predecessor companies—the Lima Locomotive Works and the General Machinery Corporation.

A Comparison of Freight Rates and Estimated Weights on Carrots, Carload, by Jean D. Neal and W. B. Langford. 70 pages, illustrations, charts, tables. Published as Bulletin No. 108 of the Texas Engineering Experiment Station, Agricultural and Mechanical College of Texas, College Station, Tex.

A study of the transportation of carrots by rail from Texas to markets in the East and the competitive position of the Texas grower as compared with the producers in Arizona, California and New Mexico, undertaken at the request of the Texas Citrus and Vegetable Growers and Shippers Association.

Britain's Big Four: The Story of the London, Midland & Scottish, London & North Eastern, Great Western, and Southern Railways, by Horace Greenleaf. 228 pages, illustrations, maps. Published by Winchester Publications Limited, 15 Maddox st., London, W.1, England. 21 shillings.

Now that the Big Four railways come under the more prosaic title of British Railways, railway enthusiasts will remember with even more affection the four great companies whose names have been extinguished, but whose traditions and achievements live on in the new national transport service. This volume is a tribute to the old order, and a salute to the new. The reader is told how the permanent way is constructed and how the signaling system works. There are chapters on the construction and management of locomotives and rolling stock, and on the history of each of the Big Four companies. These are followed by others on railroad organization, traffic, and ancillary services. An appendix contains the names and numbers of some of the locomotives of the four companies.



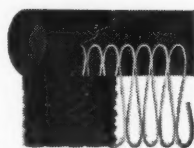
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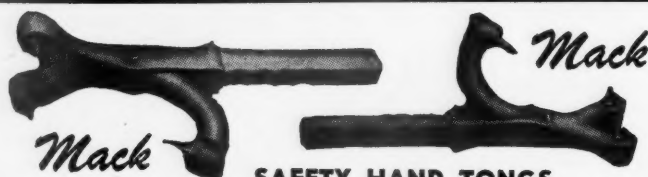
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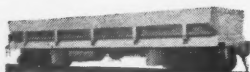
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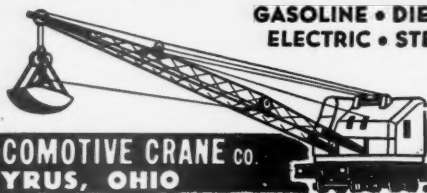
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